

County Borough of Croydon.

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ANNUAL REPORT  
OF THE  
**MEDICAL OFFICER OF HEALTH**  
AND  
**SCHOOL MEDICAL OFFICER.**  
FOR THE YEAR 1913.

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R. VEITCH CLARK, M.A., M.B., Ch.B., B.Sc., D.P.H.

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CROYDON :  
PRINTED AT THE "CROYDON TIMES" OFFICE, 108, HIGH STREET,  
1914,



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Public Health Department,  
Town Hall, Croydon.

29th June, 1914.

To the Mayor, Aldermen and Councillors of the  
County Borough of Croydon.

Mr. Mayor and Gentlemen,

I beg to present the Annual Public Health Report for the  
County Borough of Croydon for the year 1913.

The report includes an account of the initiation of the  
scheme for the treatment of tubercular persons in Croydon; the  
report of the school medical work is also included in this volume.

I am indebted to Dr. Alexander Sandison for the report  
on the cases dealt with under the Tuberculosis scheme, and to Dr.  
J. Johnstone Jervis for the report on the work of the Borough  
Hospital.

The period reported upon covers the major portion of my  
first year of office in Croydon, and it is with much pleasure that I  
record the hearty and sympathetic support which I have experi-  
enced from the staff of the Department.

I beg also to thank sincerely the members of the Corpora-  
tion, and especially the members of the Sanitary and Education  
Committees, for the courtesy and consideration shown to me  
throughout the year.

I am,

Yours obediently,

R. VEITCH CLARK.

## COUNTY BOROUGH OF CROYDON.

### Sanitary Committee, 1912-13.

*Chairman*—Mr. Councillor PECK, J.P.,

*Vice-Chairman*—Mr. Councillor DENNING, J.P.

THE MAYOR—(Mr. Councillor S. ROGERS, J.P.)

Mr. Alderman ALLEN, J.P.	Mr. Councillor HUSSEY, J.P.
„ KING, J.P.	„ LEWIS.
„ LILICO, J.P.	„ MORLAND.
„ PRICE.	„ MOSS.
Mr. Councillor CAMDEN FIELD.	„ SHIRLEY.
„ CHAPMAN.	„ SOUTHWELL.

### Staff of the Public Health Department.

*Medical Officer of Health and School Medical Officer,*

R. VEITCH CLARK, M.A., M.B., Ch.B., B.Sc. (Edin.) D.P.H. (Oxon.)

*Medical Officer to the Tuberculosis Dispensary,*

ALEXANDER SANDISON, M.B., B.A., B.Sc. (Cantab.)

*Assistant Medical Officer of Health and Assistant School Medical Officer,*

F. CHURCHILL LINTON, M.A., M.B., (Ed.) D.P.H. (Cantab.)

*Senior Resident Medical Officer and Bacteriologist, Borough Hospital,*

JOHN JOHNSTONE JERVIS, M.D. (Edin.), D.P.H. (Lond.)

*Assistant Resident Medical Officer, Borough Hospital,*

V. C. MARTYN, M.R.C.S., L.R.C.P.

*Matron of Borough Isolation Hospital,*

Miss STEVENSON.

*Chief Sanitary Inspector and Inspector under Food & Drugs Acts,*

P. SAUNDERS (Cert. R. San. Institute).

THOS. H. CULVER (Cert. R. San. Institute), Deputy Chief and District Inspector.

FREDK. F. FULKER (Cert. San. Insp., Exam. Board), Inspector for  
Infectious Diseases.

A. Low, C.S.A., Inspector of Meat, Dairies, Cowsheds and Milkshops.

JOS. H. BULL, C.R.S.I., Inspector under the Factory and Workshop Act.

J. C. EARWICKER, (Cert. R. San. Inst.)      District Inspector

A. D. PECK                      "                      "                      "

F. RICHARDSON                „                „                „

C. J. VINCENT                      "                      "

W. T. HUNT                      "                      "                      "

G. G. FLINT                      „                      ,

W. J. DAVIS	}	Disinfectors.
S. BAXTER		
G. HASLAR		

BERTRAM W. CUMMINS, Chief Clerk.

A. B. OLIVER	}	Clerks.
A. G. HADLER		
L. F. SELFE		
H. E. WHITE		

Miss CHAPMAN, Inspector of Midwives

Miss BOLTON	}	Health Visitors
Miss CHALK		
Miss GAUL		
Miss KING		
Miss PIRIE		
Miss WATERMAN		
Miss WILLIAMS		

## SUMMARY OF ANNUAL HEALTH REPORT FOR 1913.

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### COUNTY BOROUGH OF CROYDON.

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Area—9,012 acres.

Soil and Situation—Croydon is situated in the County of Surrey, 10 miles south of London Bridge. The greater part of the Borough is in the watershed of the Wandle, the remainder draining towards the Effra and Ravensbourne. The subsoil in the north of the Borough is London clay, while the upper chalk comes to the surface in the south, the clay and chalk being separated by a strip of lower London tertiaries composed of beds of clay sand and pebbles. Both the London clay and chalk are in parts overlaid by irregularly disposed beds of gravel.

Altitude—The height above ordnance datum varies from 375 feet at All Saints' Church, Upper Norwood, to 110 feet at Mitcham Road; average about 250 feet above ordnance datum.

Population—Census of 1911—169,551.

Estimated Population, June, 1913—178,094

Inhabited Houses—Census of 1911—34,363

Estimated Inhabited Houses, June, 1913—38,373.

Rateable Value, £1,163,160.

General District Rate, 3s. 6d. in the £.

Poor Rate, including Education Rate, 3s. 8d. in the £.

### VITAL STATISTICS, 1913

Birth Rate, per 1,000 living, 21·8.

Death Rate, per 1,000 living, 11·7

Infantile Mortality, per 1,000 births, 94.

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Isolation Hospitals—For ordinary infectious diseases at Waddon Marsh Lane. For smallpox at North Cheam.

Water Supply—From deep wells in the chalk, and from the Thames.



# County Borough of Croydon.

## REPORT

OF THE

## MEDICAL OFFICER OF HEALTH.

*For the Year 1913.*

### A.—VITAL STATISTICS.

**THE POPULATION** at the Census of 1901 was 133,895, and had increased at the Census of 1911 to 169,551, of whom 77,059 were males and 92,492 were females.

The population at the middle of 1913, according to the estimate of the Registrar-General, was 178,094.

The number of inhabited houses cannot be ascertained with accuracy. At the last census, in April, 1911, it was 34,363, while 2,880 houses were empty at that date. During 1913, 663 houses have been passed by the Borough Engineer as fit for occupation. The estimated number of inhabited houses in June, 1913, was 38,373.

**THE AREA** of the Borough is 9,012 acres, and the density of the population 19·7 per acre.

The approximate acreage and the population per acre of the Wards is as follows:—

Areas in Acres.	Wards.	Population per acre estimated to June, 1913.
1660	{ Upper Norwood (sub-division)	{ 16·3
	{ Thornton Heath do.	
1980	South Norwood	27·4
998	West	36·5
1181	North	26·3
404	Central	39·7
2209	East	9·6
1580	South	12·1
9012		



**THE BIRTHS** registered during the year in the Borough numbered 3,895. Owing to the receipt from the Registrar-General of the number of births properly belonging to other districts and also of the number occurring elsewhere but properly belonging to Croydon, it is possible to obtain the corrected number for the Borough, namely 3,895. Of those born, 1,981 were boys and 1,914 were girls. The birth rate equalled 21·8 per 1,000, as compared with 23·9 for England and Wales.

Of the total births, 201, or 5·1 per cent. were illegitimate.

The births were distributed as follows:—

	Total.	Birth rate per 1,000 estimated population.	
Upper Norwood Sub-Division ...	112	...	13·8
Central Ward ... ..	332	...	20·6
East ... ..	402	...	18·8
South Ward ... ..	337	...	17·5
BOROUGH ... ..	3895	...	21·8
South Norwood Ward ... ..	594	...	22·1
North Ward ... ..	781	...	25·1
Thornton Heath Sub-Division ...	425	...	22·4
West Ward ... ..	800	...	21·9
The Workhouse ... ..	76	...	·

Victoria House, 99, Central Hill (Servants' Reformatory), 31

Outward Transfers ... ..	30
Inward ,, ... ..	35

**DEATHS.**—During the year, 2,110 deaths were registered in the Borough, or 11·8 per 1000. One hundred and twenty-four of the deaths registered in the Borough were those of strangers dying at the Workhouse or Infirmary, 26 of strangers dying at the Croydon General Hospital, 26 at the Cottage Hospital, Upper Norwood, 3 at the Purley Cottage Hospital, 2 at 297, Whitehorse Lane (Nursing Home), 1 at 3, Tavistock Grove (Nursing Home), 1 at 40, Dingwall Road (Nursing Home), 1 at 2, Sydenham Road (Nursing Home), 12 at other residences and 3 street deaths, while 5 deaths at the Borough Hospital occurred among patients admitted from outside the Borough.

If we deduct these 204 deaths and add 190 deaths of Croydon residents known to have occurred outside the district during the same period, we get a nett total of 2,096 deaths, which is equal to 11·7 per 1,000 as compared with 13·4 for England and Wales, 14·7 for the 96 great towns, 13·0 for the 145 smaller towns, 12·1 for England and Wales less the 241 towns.

Corrections for deaths of strangers occurring within the Borough and of deaths of Croydon people dying outside the Borough are now returned by the Registrar-General. These were formerly obtained for Croydon through the courtesy of the Superintendent of Statistics, Somerset House, and the figures have been available since 1903.

The nett death-rates for the four quarters of the year were :—

			1913.			Average for 1903-1912.
1st Quarter	...	...	13·2	...	...	14·8
2nd Quarter	...	...	10·8	...	...	11·2
3rd Quarter	...	...	10·9	...	...	10·8
4th Quarter	...	...	12·1	..	...	12·0
Year	...	...	11·8	...	...	12·2

**WARD DEATH-RATES.**—Table VI. gives the number of deaths assignable to each district in the Borough. Institution deaths have been as far as possible, debited to the Wards in which the deceased lived prior to admission to hospital.

The Ward deaths for the year were as follows :—

			Deaths.	Death-rate per 1,000.
North Ward	...	...	349	11·2
Thornton Heath Sub-Division	...	...	182	9·5
East Ward	...	...	226	10·5
South Ward	...	...	234	12·1
BOROUGH	...	...	2096	11·4
Central	...	...	216	13·4
South Norwood Ward	...	...	319	11·9
Upper Norwood Sub-Division	...	...	98	12·1
West Ward	...	...	451	12·3
Undistributed Institution and Street Deaths	...	...		

**INFANTILE MORTALITY** is measured by the proportion of deaths under one year to 1,000 births, and amounted to 94 as compared with 77 in 1912, 105 in 1911, 87 in 1910, 79 in 1909, 99 in 1908, 94 in 1907, 125 in 1906, and 96 in 1905. During the year 1913, the rate for England and Wales was 109, while in the 96 large towns it was 117, and in the 145 smaller towns 112; in England and Wales, less the 241 towns, 96, and in London 105.

The figures for the various Wards were :—

		Births,	Deaths under 1 year.	Death-rate per 1000 Births (all causes)	Death-rate per 1000 births from "diarrhoeal" diseases.
Upper Norwood Sub-					
division ... ..	143	8	56	7	
North Ward ... ..	857	69	85	11	
Thornton Heath Sub-					
division ... ..	425	37	87	23	
East Ward ... ..	402	37	91	7	
<b>BOROUGH</b> ... ..	<b>3890</b>	<b>368</b>	<b>94</b>	<b>17</b>	
Central Ward... ..	332	36	108	21	
South Ward ... ..	337	37	109	26	
West Ward ... ..	800	90	112	21	
South Norwood Ward	594	54	91	13	

The following table shows the fluctuations since 1892 in the infantile mortality from "all causes," from "diarrhoeal diseases," and from "causes other than diarrhoeal."

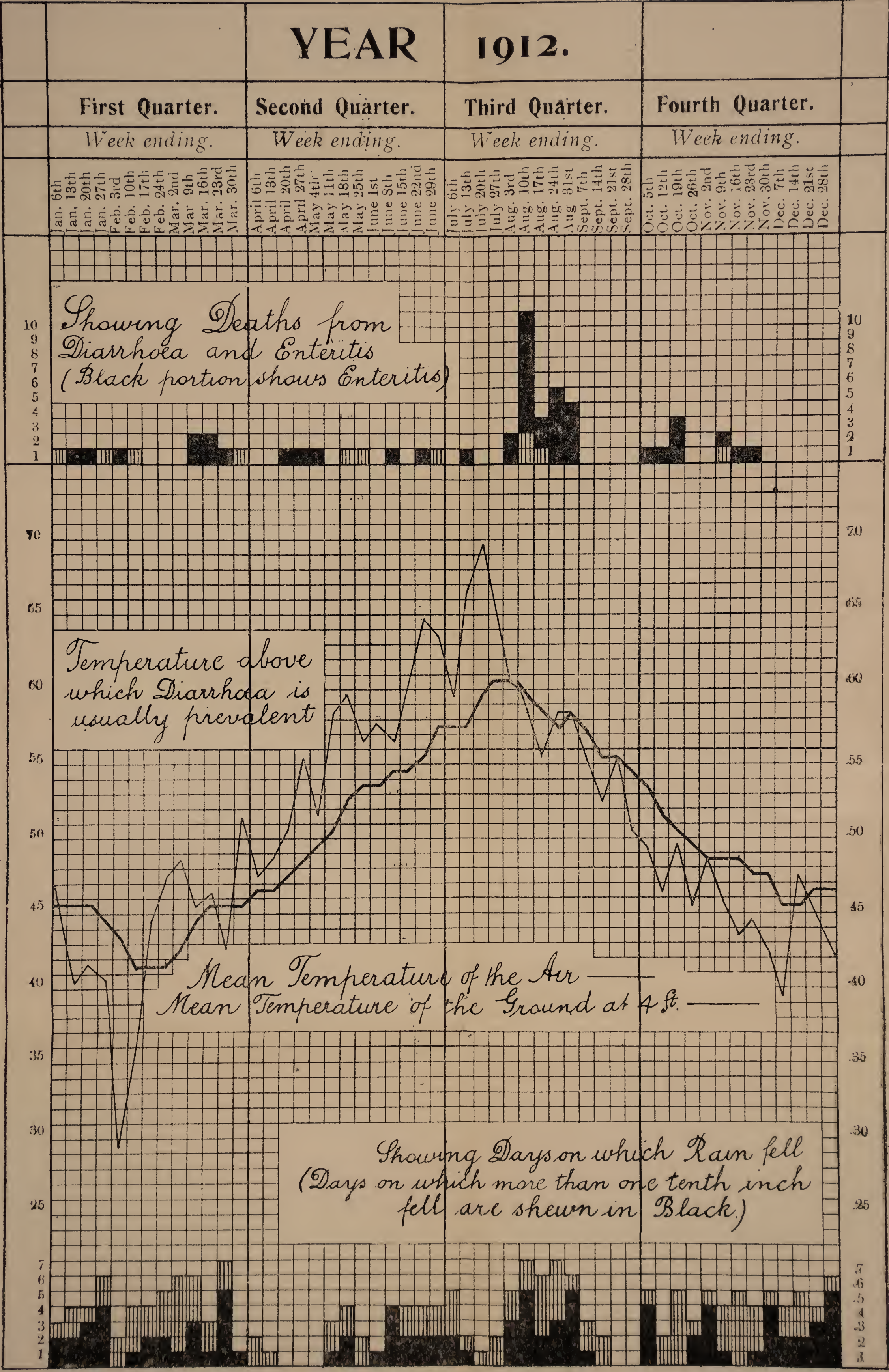
Years.	Total Infantile Mortality from all causes.	Infantile Mortality from "diarrhoeal" diseases.	Infantile Mortality from other than "diarrhoeal" diseases
1893—1897 ...	142	25	117
1898—1902 ...	143	38	105
1903 ...	104	9	95
1904 ...	128	29	99
1905 ...	96	14	82
1906 ...	125	42	83
1907 ...	94	10	85
1908 ...	99	12	87
1909 ...	79	7	72
1910 ...	87	10	77
1911 ...	105	33	72
1912 ...	77	11	66
1913 ...	94	16	78

### DIARRHŒA AND EPIDEMIC ENTERITIS.

Deaths classified in the tables supplied by the Registrar-General as diarrhœa, epidemic enteritis, enteritis and gastro-enteritis, have been included as "diarrhoeal" deaths: as this classification corresponds with that adopted in former years, comparisons made on the resultant figures are valid.

During 1913 diarrhœa and epidemic enteritis accounted for 45 deaths of infants under one year of age, 20 others being due to enteritis or gastro-enteritis, making a total of 65 deaths from "diarrhoeal" diseases. A further 20 deaths at ages from one year or upwards were due to these diseases.











# YEAR 1913.

First Quarter.

Second Quarter.

Third Quarter.

Fourth Quarter.

Week ending.

Week ending.

Week ending.

Week ending.

Jan. 4th  
Jan. 11th  
Jan. 18th  
Jan. 25th  
Feb. 1st  
Feb. 8th  
Feb. 15th  
Feb. 22nd  
Mar. 1st  
Mar. 8th  
Mar. 15th  
Mar. 22nd  
Mar. 29th  
April 5th  
April 12th  
April 19th  
April 26th  
May 3rd  
May 10th  
May 17th  
May 24th  
May 31st  
June 7th  
June 14th  
June 21st  
June 28th  
July 5th  
July 12th  
July 19th  
July 26th  
Aug. 2nd  
Aug. 9th  
Aug. 16th  
Aug. 23rd  
Aug. 30th  
Sept. 6th  
Sept. 13th  
Sept. 20th  
Sept. 27th  
Oct. 4th  
Oct. 11th  
Oct. 18th  
Oct. 25th  
Nov. 1st  
Nov. 8th  
Nov. 15th  
Nov. 22nd  
Dec. 29th  
Dec. 6th  
Dec. 13th  
Dec. 20th  
Dec. 27th

Number of Deaths

Showing Deaths from  
Diarrhoea and Enteritis  
(Black portion shows Enteritis)

Number of Deaths

Temperature

Temperature above  
which Diarrhoea  
is usually prevalent

Mean Temperature of the Air —  
Mean Temperature of the Ground at 4 ft. —

Showing Days on which Rain fell  
(Days on which more than one tenth inch fell  
are shown in Black.)

Days

Temperature

Days





The accompanying charts shew the seasonal distribution of the diarrhoeal deaths under one year of age, in the years 1912 and 1913.

The following are the particulars as to feeding of infants dying during the first six months of life:—

### METHOD OF FEEDING.

Method of Feeding during the first six months of life of children who survived, and of children who **died between one week and six months old**. Deaths of infants under one week have been excluded because it is unlikely that methods of feeding can have been responsible for a fatal issue in so short a time.

TABLE A.

	Infants dying from Diarrhoeal Diseases. — 0-6 months.	Infants dying from other than Diarrhoeal Diseases. — 0-6 months.	Infants surviving 6 months.	Total investigated.
Breast Fed only... ..	17	49	983	1049
Breast and subsequently Cow's milk ... ..	4	6	119	129
Ditto Condensed Milk	14	6	91	111
Ditto Other foods ...	4	2	106	112
Breast & simultaneously Cow's Milk ... ..	2	8	52	62
Ditto Condensed Milk	3	2	22	27
Ditto Other foods ...	...	5	40	45
Entirely Hand Fed— Cow's Milk ... ..	8	13	68	89
Ditto Condensed Milk	7	11	46	64
Ditto Other foods ...	2	8	33	43
Number investigated ...	61	110	1560	1731

TABLE B

gives the same information expressed in percentages.

	Of all infants investigated under 6 months.	Of infants dying from Diarrhœal Diseases.	Of infants dying from other than Diarrhœal Diseases.
	per cent.	per cent.	per cent.
Breast Fed only ... ..	61	28	44
Breast and subsequently Cow's Milk...	7	7	6
Ditto Condensed Milk ...	6	23	6
Ditto Other foods ...	6	7	2
Breast and simultaneously Cow's Milk	4	3	7
Ditto Condensed Milk ...	2	5	2
Ditto Other foods ...	3	...	4
Entirely Hand Fed—Cow's Milk ...	5	13	12
Ditto Condensed Milk ...	4	11	10
Ditto Other foods ...	2	3	7
	100	100	100

Table B. shows that 28 per cent. of infant deaths from diarrhœal diseases occurred amongst breast-fed children, and the remaining 72 per cent. amongst children who were either entirely, hand fed or had artificial kinds of food as well as breast fed.

### DEATH CERTIFICATION.

All deaths in the Borough were certified by the Medical Attendant or by the Coroner.

### INQUESTS.

were held in 201 instances, or 9·6 per cent of the total deaths.

### THE ASSIGNED CAUSES OF DEATHS.

are fully set out in Tables III., IV., and V.

## **SMALLPOX.**

Smallpox has been absent from the Borough since April, 1906.

### **CROYDON AND WIMBLEDON JOINT SMALLPOX HOSPITAL.**

The Smallpox Hospital District comprises the County Borough of Croydon, the Borough of Wimbledon, the Urban Districts of Penge and of Merton and Morden, and the Croydon Rural District. The Hospital has not been used for Smallpox since August, 1906.

## **VACCINATION.**

During the year ending December 31st, 1913, the number of primary vaccinations in Croydon and Penge amounted to 1,881, as compared with 4,328 registered births.

The number of infants vaccinated, therefore, amounted to 43 per cent. of the registered births, as compared with 48 per cent. in 1912, 58 per cent. in 1911, 58 per cent. in 1910, 62 per cent. in 1909, 62 per cent. in 1908, 90 per cent. in 1907, and 82 per cent. in 1906.

The percentage of infants vaccinated amongst registered births is the smallest yet recorded. In view of the undoubted fact that vaccination is the primary and important precaution against smallpox, the great decline in the vaccination is a matter to be regretted. It cannot be too strongly impressed upon the minds of the public in general that the practice of infant vaccination is the safest and most effective precaution against the disease at our disposal.

## **MEASLES.**

Measles accounted for 58 deaths, as compared with 31 in 1912. This disease is not notifiable in the borough.

During the year notices were sent to Schools from the Public Health Department excluding 1,105 scholars actually suffering from measles.

50 out of 58 deaths occurred in small houses. This is approximately the same proportion as was recorded in 1912.

Measles is one of the serious diseases of infancy and it is desirable that the popular idea that measles is a slight illness should be combated; it is one of the diseases of infancy which requires very careful attention and nursing on the part of the parents.

## **SCARLET FEVER.**

(See Tables II., IV. and V.)

Four hundred and seventy cases were notified, as compared with 476 in 1912. Of these 3 or '64 per cent. ended fatally.



## RETURN CASES OF SCARLET FEVER.

In 14 instances after patients had been discharged from the Hospital subsequent cases arose, possibly infected by the discharged patients. These subsequent cases numbered 21.

The particulars of patients suspected of having carried infection are given in the following table:—

DISCHARGED PATIENT.						Notes as to any abnormality on Discharge.	Onset and number of return case.	Interval between discharge of patient and onset of return case.
No. in Register	Age.	Sex.	Date of Discharge.	Days in Hospital.	Length of illness.			
285	3	M	18/2/13	56	58	Nil.	24/2/13 (150)	6 days
189	8	F	11/2/13	108	110	Nil.	4/3/13 (189)	21 "
966	6	M	1/2/13	52	53	Nil.	10/3/13 (175)	37 "
							19/3/13 (204)	46 "
966	6	M	18/2/13	55	57	Nil.	28/3/13 (227)	38 "
							6/4/13 (247)	47 "
							9/4/13 (252)	50 "
386	7	F	5/8/13	44	45	Nil.	16/8/13 (507)	11 "
53	4	M	1/5/13	97	99	Nil.	10/5/13 (305)	9 "
							23/5/13 (329)	22 "
95	12	M	15/4/13	67	68	Nil.	11/5/13 (306)	26 "
							22/5/13 (328)	37 "
382	4	M	4/9/13	96	97	Enlarged cervical glands.	29/9/13 (611)	25 "
467	10	F	6/9/13	44	46	Nil	12/9/13 (561)	6 "
							16/9/13 (567)	10 "
453	7	F	30/8/13	43	45	Nil.	9/9/13 (566)	10 "
476	5	M	9/9/13	62	68	Nil.	4/10/13 (622)	25 "
477	5	M	18/10/13	82	83	Nil.	23/10/13 (668)	5 "
							5/11/13 (702)	18 "
529	14	F	18/10/13	53	54	Nil.	24/10/13 (669)	6 "
516	5	M	20/11/13	93	94	Enlarged cervical glands not active	7/12/13 (827)	17 "

In the preparation of Tables of Return Cases a limit of a fortnight between the discharge of the supposed infecting case and the onset of the illness in the return case is sometimes adopted. If this limit were applied to the foregoing table only 8 cases would be included; if a limit of three weeks 11 cases would be included.

## INFLUENZA

was the assigned cause of death in 26 instances, as compared with 18 in 1912.

## WHOOPIING COUGH

accounted for 23 deaths, 22 of which occurred in children under five years of age. The number of deaths is more than in 1912, when 13 were registered. The number of cases is unknown. 358 children who were suffering from this disease were excluded from school, as compared with 476 in 1912.

## DIPHTHERIA AND MEMBRANOUS CROUP.

The number of cases notified amounted to 451, as compared with 767 in 1912, while 16 cases terminated fatally, as compared with 25 in 1912. The case mortality was 3.5 per cent. It was a routine practice to take throat or nose cultures from all contact cases of school age or under. Also a number of adults attended at the Town Hall to have cultures taken.

The quarterly incidence of cases and deaths in 1913, and previous years is shewn in the following table :—

### DIPHTHERIA.

#### Notified Case—

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
1st quarter	50	100	60	93*	101	124	61	115	111	100
2nd „	38	42	42	49	89	75	57	105	190	81
3rd „	98	44	54	59	92	78	40	87	307	105
4th „	126	80	148	84	123	79	109	207	159	165

#### Registered deaths—

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
1st quarter	4	13	13	21*	11	13	1	12	11	5
2nd „	4	2	5	3	7	4	6	14	3	3
3rd „	6	2	9	5	7	4	6	4	7	3
4th „	10	8	13	11	12	3	8	7	4	5

\*Not including a fatal case admitted to General Hospital from Mitcham and thence transferred to the Borough Hospital.

## DIPHTHERIA IN UPPER NORWOOD.

Towards the end of the year Upper Norwood was the seat of an outbreak of diphtheria of considerable magnitude. The outbreak was not confined to Croydon, but involved also the neighbouring districts of Lambeth, Penge, Camberwell, Lewisham and Beckenham. The total number of cases was 119; these were distributed as follows :—

Croydon	...	...	...	...	42
Lambeth	...	...	...	...	33
Penge	...	...	...	...	19
Camberwell	...	...	...	...	14
Lewisham	...	...	...	...	7
Beckenham	...	...	...	...	4
Total	...	...	...	...	119

The Croydon cases occurred over the period between November 24th and December 17th. The daily incidence of the cases was as follows :—

Date of Onset.				Cases.
November	24th	...	...	1
„	25th	...	...	2
„	26th	...	...	1
„	27th	...	..	2
„	28th	...	...	1
„	29th	...	...	2
„	30th	...	...	4
December	1st	...	...	5
„	2nd	...	...	2
„	3rd	...	...	1
„	4th	..	...	1
„	5th	...	...	1
„	6th	...	...	1
„	7th	...	...	1
„	8th	...	...	1
„	9th	...	...	2
„	10th	...	...	4
„	11th	...	...	—
„	12th	...	...	2
„	13th	...	...	1
„	14th	...	...	3
„	15th	...	...	—
„	16th	...	...	3
„	17th	...	...	1
Total ...				<u>42</u>

Enquiry into the source of infection revealed only one common link between the cases, viz. : that the milk supply of the infected households was obtained from a dairy situated in the Metropolitan Borough of Lambeth. This was observed at once in relation to the earliest four or five cases, and the information was immediately conveyed to the Medical Officer of Health of Lambeth. An extensive enquiry was instituted by him into the source of the infection of the milk. On and after December 12th the milk distributed from the dairy was sterilised by being heated to a minimum temperature of 180 deg. Fahrenheit and then rapidly cooled. From that date the outbreak quickly subsided—the onset of the last Croydon case being on December 17th. The cases occurring after December 12th were either infected before sterilisation of the milk was carried out or were secondary to other cases in the households.

The discovery of the origin of the infection of the milk offered very considerable difficulty because



(1) The rise in the number of the cases was relatively slow as compared with that ordinarily occurring in milk-borne disease.

(2) The cases occurred in a very irregular manner amongst the households supplied by the dairy.

(3) The proportion of the number of infected families to the number of households supplied by the dairy was less than might have been expected.

(4) Some large institutions supplied by the dairy entirely escaped infection.

(5) Very few children were affected, nearly all of the patients being of adult age—a circumstance at variance with the usual age-incidence of milk-borne disease.

A detailed report of his investigation made by the Medical Officer of Health of Lambeth to the Lambeth Borough Council and a report made to the Local Government Board by one of the Board's Medical Inspectors on the outbreak have already been published. These investigations showed that the milk was infected from two sources, viz. :—

(1) From certain of the milk distributors employed by the dairy who were diphtheria “carriers,” i.e., were themselves infected without suffering from the disease.

(2) From an infected farm in West Sussex, one of the farms regularly sending milk to the Lambeth dairy.

The latter was undoubtedly the original source of infection of the milk. The employees of the Lambeth dairy were themselves consumers of the infected milk, and from this cause becoming diphtheria “carriers,” formed a secondary source of milk infection during the milk distribution. The infection at the farm was of an unusual nature. One of the milkers had wounded his finger with a thorn in September, 1913; the wound ulcerated in the latter part of November, and as the ulcer refused to heal the finger was amputated on December 27th, 1913. A true virulent type of diphtheria bacillus was subsequently isolated bacteriologically from the ulcer. Several of the milk-cows exhibited upon examination dried practically healed ulcers on the teats, but it was not found possible to determine whether these were diphtheritic or not. The question whether the ulcer on the finger of the milker or the eruption on the teats of the cows was the original infecting source is an open one. The “farm” infection of the milk was unquestionably efficiently dealt with from December 12th by the sterilisation of the milk at the dairy.

The case mortality of the outbreak was fortunately very low—only one death being recorded.

#### RELATION OF DIPHTHERIA TO DRAINAGE DEFECTS.

451 notified cases occurred in 327 houses. In 6 instances the drains were not examined. The following is the result of the examination of the drains of the remaining 321 houses:—

Number of houses where no defects were found:—236, or 73·5 per cent.

Number of houses where serious defects were found:—23, or 7·1 per cent.

Number of houses where slight defects were found:—62, or 19·3 per cent.

The proportion of houses infected with diphtheria that were found to have serious defects in their drains was 7·1. This figure tends to strengthen the previously expressed view that drainage defects are not an important factor in the causation of diphtheria.

#### EARLY TREATMENT OF DIPHTHERIA.

Investigation of fatal cases has again directed attention to the desirability of securing the prompt administration of antitoxin to patients suffering from diphtheria. Experience shows that the best results are obtained if antitoxin is administered as soon as diphtheria is suspected, and without waiting for bacteriological confirmation of the diagnosis. The Corporation supply antitoxin for the treatment of patients. For the convenience of medical practitioners, it has recently been found possible to add to the number of places where antitoxin can be obtained. The depots are eight in number, and are situated as follows:—

The Public Health Department, Town Hall (during office hours).

The Chief Fire Station, Park Lane, Croydon (any hour).

The South Norwood Fire Station, South Norwood Hill, South Norwood (any hour).

The Thornton Heath Fire Station, Brigstock Road, Thornton Heath (any hour).

The Tramway Offices, Thornton Heath Pond (8.30 a.m. to midnight).

The Borough Hospital, Waddon Marsh Lane, Croydon (any hour).

Messrs. Henson & Co., 20, Beulah Hill, Upper Norwood.

Mr. Deal, 87, Lower Addiscombe Road, Croydon.



## ENTERIC FEVER.

Thirty-two cases were notified, and six deaths from this disease were registered during the year. Twenty-six cases were removed to the Borough Hospital, and one was admitted to the Norwood Cottage Hospital from outside the Borough. Two of the 26 cases removed to the Borough Hospital were paratyphoid. Of the other 24 five were subsequently found to be suffering from other complaints, viz. :—Two from Tubercular Meningitis, one from Pulmonary Phthisis, one from Carcinoma of Intestine, one from Pregnancy. There were thus 25 cases which required investigation. Of these, one was due to personal infection from preceding cases, in three cases the disease appeared to have been contracted outside the Borough, while in two instances oysters, or fried fish, and in one instance a stoppage in house drains, were possible sources of infection. Twelve cases were due to a “carrier” case. In the remaining six cases the origin of the disease was indefinite.

### ENTERIC FEVER DUE TO “CARRIER” CASE.

Eight cases of enteric fever were notified during the period from the 25th January to 19th February, 1913. These cases were supplied with milk from one dairy, and steps were at once taken to ascertain the source of infection. It was found that at the dairy a man was employed in delivering milk who had suffered from enteric fever in August, 1911. On the 4th February, 1913, on the instructions of the Medical Officer of Health, this man stopped dairy work. Four cases whose milk supply did not come from the dairy mentioned were traced to the “carrier,” the source of infection being apparently personal contact. One of these lodged for some time at the house of the “carrier,” the other three cases occurred in a family the members of which were friendly with the family of the “carrier.”

As the numbers for one year are small, the particulars have been taken out for the 14 years, 1900-1913 inclusive.

### PARTICULARS OF ENTERIC FEVER CASES.

1900 TO 1913 INCLUSIVE.

*Cases Notified.*—510 (including 14 cases of Continued Fever).

*Removed to Borough Hospital.*—306 cases (including four cases of Continued Fever).

On removal to the Borough Hospital sixty-eight (68) and the Croydon General Hospital one (1) were found to be suffering from other diseases.

*Water Supply of the Cases Notified :—*

CROYDON ... ..	361
LAMBETH ... ..	140
Cases brought to Public Institutions in the Borough from outside Districts ... ..	9
Total ... ..	<hr/> 510

*Concerning the Notified Cases the following facts were ascertained :—*

Suffering from other diseases, and not enteric fever	69
Doubtful diagnosis ... ..	2
Home case, diagnosis subsequently amended ...	3
Infected outside the Borough ... ..	64
Possibly infected by shellfish, watercress, etc. ...	56
Infected from other cases (twelve due to “carrier” case) ... ..	74
Other possible sources ... ..	3
	<hr/> 271
Source of illness not traced ... ..	239
	<hr/>
Total ... ..	510

In the table just given the two cases of paratyphoid are included amongst the true typhoids.

Of the 239 cases, the source of which was not traced, and which, therefore, might have been water-borne infection, 173 lived within the area of the “Croydon” supply, and 66 in the “Lambeth” area. The enteric fever incidence in the two areas was, therefore, 12 per 10,000 in the “Croydon” area, and 15 per 10,000 in the “Lambeth” area for the 14 years. The numbers for both water supplies are small, and conclusively disprove the suggestion that there has been any water-borne epidemic in Croydon during recent years.

When the number of cases of enteric fever are so small as they were in Croydon in 1913 the question of a water epidemic does not arise, but knowing what we do of the potential dangers of water infection, it is still essential that the efforts made by the Water Committee to safeguard further the public supplies should be in no way relaxed.

Investigation was also made into the sanitary condition of premises in which cases of enteric fever occurred, which could not be traced to infection outside the borough. As the numbers for 1913 are so small, particulars have been extracted for the nine years 1905—1913.

### ENTERIC FEVER.

*(Deducting wrong diagnosis and definitely imported cases).*

Year.	Houses Infected.	Houses Tested.	Serious defects, i.e. bad stoppages, and drains requiring to be re-laid.	Slight defects, i.e. defective joints of ventilation pipes, &c.	Remarks.
1905	16	16	2	4	
1906	27	27	4	6	
1907	12	12	—	2	
1908	31	30	5	6	The Convent at Upper Norwood was not tested.
1909	18	17	2	5	Croydon Union Infirmary not tested.
1910	10	10	—	2	
1911	22	21	1	7	Croydon Borough Hospital not tested.
1912	24	24	2	4	
1913	20	19	1	5	—
	180	176	17	41	

### PUERPERAL FEVER.

was notified on 6 occasions, in 2 of which a doctor was present at the confinement.

Puerperal fever occurred in 4 cases attended by midwives.

Four cases ended fatally.

### ERYSIPELAS.

was notified on 107 occasions, and 6 cases ended fatally.



### TUBERCULOSIS.

of all forms was assigned cause of death in 202 instances, or 1·13 per 1,000 persons living, whilst phthisis alone was responsible for 153 deaths or ·8 per 1,000 living.

The number of cases notified in each year was as follows :—

Year.					Cases Notified.
1903 (part of)	...	...	...	...	57
1904	...	...	...	...	129
1905	...	...	...	...	75
1906	...	...	...	...	9
1907	...	...	...	...	13
1908	...	...	...	...	106
1909	...	...	...	...	139
1910	...	...	...	...	130
1911	...	...	...	...	240
1912	...	...	...	...	312
*1913	...	...	...	...	519

All the notified cases are visited, unless for special reasons the notifying doctor does not desire it, by one of the health visitors, who makes the necessary enquiries and gives verbal instructions in accordance with the local handbill on the prevention of consumption. The premises are in addition inspected by the sanitary inspectors.

During the year 1912 the Council had directed that steps should be taken to secure the establishment of a tuberculosis dispensary within the Borough with proper staff, and also that negotiations should be entered into with a view to the smallpox hospital at Cheam being used for the treatment of "hospital" cases of tuberculosis.

Considerable difficulty was experienced in finding premises which could be used for a tuberculosis dispensary, and it was not until the end of September, 1913, that the dispensary proper was established in full working order. The proposal to use the smallpox hospital at North Cheam for the treatment of tuberculosis was not carried out, the hospital being reserved for its own specific purpose.

During the year 1913 the development of the scheme for the treatment of all tubercular persons present within the boundaries of the Borough progressed steadily. In February a twelve-bed ward

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\*All forms of tuberculosis notifiable from 1st February, 1913.



in the Borough Hospital was set aside for the treatment of cases of tuberculosis in which the disease was not in its very earliest stages. In July this accommodation was augmented by the addition of five shelters in the grounds of the Borough Hospital. In July also six of these beds were set aside for women, making a total of six female and eleven male beds.

In February also arrangements were made with various sanatoria for the reception of patients from Croydon suffering from the early stages of tubercular disease, and during the year the number of such beds gradually increased as the cases came to the knowledge of the department. In July a block of six beds was obtained in the National Sanatorium, Benenden, and reserved specifically for the Borough.

In the beginning of April the Medical Officer to the Tuberculosis Dispensary—Alexander Sandison, M.B., B.C., B.A., B.Sc.—began his work, the examinations from that date until September being carried out in the rooms of the Public Health Department and of the Insurance Committee. From the latter date this work has been carried on in the Dispensary itself. Miss Charlotte R. Pirie was appointed in July as health visitor, her work to be primarily associated with the visitation of the homes of tubercular people. Miss Pirie began work in September.

In July, 1913, the Council considered the following report made by the Medical Officer of Health on the establishment of a scheme dealing with all tubercular persons within the area of the County Borough, and approved this scheme as outlined. The scheme received later the approval of the Local Government Board.

The following is the report referred to, viz. :—

The Local Government Board has written requesting that the scheme for dealing with tuberculosis adopted by the Council of the County Borough of Croydon be submitted them for approval, and I recommend that the following be adopted and forwarded to the Board for that purpose :—

The arrangements made by the Local Authority for dealing with tuberculosis in the County Borough of Croydon consist of the provision of hospital and sanatorium accommodation and of a tuberculosis dispensary. The Council has already approved of the scheme in general principle.

The full scheme involves the establishment of a tuberculosis dispensary, of 36 beds for sanatorium treatment, and of 36 beds for hospital treatment of tuberculosis. The present position of affairs is as follows :—

*Medical Officers.*—The Medical Officer of Health (Robert Veitch Clark, M.A., M.B., Ch.B., B.Sc., D.P.H.) is appointed Chief Tuberculosis Officer.

A specially trained medical man (Alexander Sandison, M.B., B.C., B.A., B.Sc.) has been appointed Medical Officer to the Tuberculosis Dispensary. This officer has also charge of the treatment of the tubercular patients receiving hospital treatment at the Borough Fever Hospital.

*Tuberculosis Dispensary.*—The Local Authority have taken on lease premises at 13, Katharine Street (opposite the Town Hall) for use as a dispensary, at an annual rental of £65. The Local Government Board approved these premises for this purpose by letter dated 14th December, 1912. Until now, the work of the dispensary has been carried on in the Town Hall and in certain rooms belonging to the local Insurance Committee. It is expected that the dispensary proper will be in working order within a month from this date. The work already done has included the usual dispensary work, arrangements for domiciliary treatment (including the provision of open air shelters) and the examination of cases to determine the kind of treatment necessary.

*Hospital Provision.*—One of the wards of the Borough Fever Hospital—a cubicle ward of 12 beds—was approved temporarily by the Board on the 13th January, 1913, for the hospital treatment of tubercular patients. This approval has, by letter dated the 16th June, 1913, been extended to July, 1914. These beds have been so used since the latter part of January, 1913. An application is now being made to the Board for approval of four open-air shelters in the Borough Hospital grounds as additional beds until the permanent scheme is completed. The permanent scheme provides for the addition to the present Fever Hospital of two pavilions—one of 26 beds for male patients, and one of 10 beds for females. On the 6th June the Board approved of the loan necessary for the purchase of the site, and plans for the buildings are in course of preparation.

For the beds at the Borough Hospital the Insurance Committee are paying the Local Authority at the rate of 35s. per patient per week.

*Sanatorium Provision :—*

The Local Authority have secured for twelve months the use of a block of six beds at the Benenden Sanatorium, Kent, at a cost of 35s. per bed per week. Eight beds in various other sanatoria are also at the disposal of the Local Authority for the treatment of phthisical patients, the cost per bed per week being 30s. to 35s. It is proposed that the permanent sanatorium provision of 36 beds be made in conjunction with the Surrey County Authority and negotiations to that end are now in progress.

The fully developed scheme shall provide for the treatment of all persons in the Borough suffering from tuberculosis.

At present the Local Authority is liable for the total annual cost of the treatment of tuberculous persons, minus the sum which will be annually contributed by the Insurance Committee. If this present complete scheme be adopted, however, whereby all tuberculous persons (not only insured persons) are to be offered treatment, the intention of the Local Government Board is (see L.G.B. Circular, Dec. 6th, 1912) that after deducting the contribution received by the Local Authority from the Insurance Committee half of the total cost left shall be paid by the Treasury. This is indicated in the latter portion of each of the following paragraphs of figures.

TUBERCULOSIS SCHEME—APPROXIMATE ESTIMATE OF COST.

*Estimated expenses incurred this year on present basis.*

	£ Per annum.
30 beds at 35s. per week (i.e., 14 in sanatoria and 16 in hospital) ... ..	2,730
Dispensary and domiciliary treatment ... ..	975
	<hr/>
Total ... ..	3,705
The total amount at the disposal of the Insurance Committee for the treatment of tuberculosis is ... ..	1,665
	<hr/>
Therefore the excess of expenditure is ... ..	2,040
And for this the Local Authority is liable, but the Treasury may make a maximum grant of ... ..	1,020
	<hr/>
Therefore the total nett cost to the Local Authority estimated for this year is ... ..	1,020



*Approximate Annual Expenditure when full Tuberculosis Scheme is in operation.*

We may estimate that 500 people suffering from tubercular disease may require treatment by the Local Authority annually. Of these, 72 at any given time will be in sanatoria or in hospital, and 428 will be receiving domiciliary treatment. The sanatorium and hospital expenses will, therefore, equal ... £6,552 per annum.

Dispensary and domiciliary expenses may be estimated at ...	1,500	,,
---	-------	----

The approximate cost of the complete scheme therefore equals	£8,052	,,
--	--------	----

Estimated contribution by Insurance Committee to Local Authority	£1,665	,,
--	--------	----

Leaving the liability of the Local Authority at ... ..	£6,387	,,
--	--------	----

But the maximum grant payable by the Treasury is half this sum, viz. : ... ..	£3,193 10 0	
---	-------------	--

∴ Total nett liability of Local Authority will be ... .. £3,193 10 0

The second paragraph of the Estimated Expenditure indicates the cost of the scheme when in full operation, but this will certainly not be reached until at least two years hence.

The two special points to be observed are (1) The Treasury will make no grant unless the Local Authority undertake the treatment of all tuberculous patients in the Borough, and (2) That the campaign against tuberculosis is valueless in so far as the community is concerned unless treatment and preventive measures are extended to all people afflicted by the disease whether insured or non-insured persons.

It is impossible to be certain of the estimates given in the second paragraph of figures as the total number of tubercular people in the Borough is not known with any accuracy, but they approximately indicate what may be looked for when the Scheme is in full working order.



In September premises at 13, Katharine Street (directly opposite the Town Hall) were opened as the Tuberculosis Dispensary.

During the year the Sanitary Committee considered very fully the provision of permanent accommodation both of the "Hospital" and "Sanatorium" type for tubercular people in the Borough. A piece of land ten acres in extent and adjoining the Borough Hospital was acquired by the Corporation for the purpose of erecting an extension of the hospital, consisting of two pavilions for the treatment of male and female tubercular patients respectively. The sanction of the Local Government Board for the necessary loan was given on the 6th June, 1913.

Since then a great deal of attention has been given to the most efficient method of extending the Hospital in this direction and of dove-tailing it in the most effective manner with the existing work of the Hospital, and the extension of the general "fever" accommodation, the need for which will undoubtedly arise with the rapidly growing population of the Borough.

Hospital and sanatorium accommodation for the tuberculous, it was felt, would be most adequately provided by combined action on the part of the County Council of Surrey and the Council of the County Borough of Croydon. Negotiations have been proceeding during the second half of 1913 with this end in view, and are still going on.

While these aspects of the development of the County Borough's Tuberculosis Scheme as a whole have gradually been taking more definite shape, the actual work of the department in connection with the tubercular patients themselves has been steadily carried out and steadily increasing. During 1913 only insured persons were—with very few exceptions—treated, as the scheme for dealing with all tubercular persons in the borough—whether insured or not—did not come into force until January, 1914.

A fair number of uninsured people were examined with a view to treatment being given in the year 1914; these cases are referred to in detail in subsequent tables.

The work at the Dispensary has been carried on throughout in close co-operation with the medical practitioners in the town, the cases in practically every instance being seen only after consultation with the medical man in attendance when the name of such had been obtained. The relationships in this respect have been highly satisfactory.

The Dispensary has fulfilled the purpose for which it is designed extremely well, although the period during which it was in full working order in the year 1913 was short. It has been primarily applied in the beginning for the examination and the careful consideration by the Medical Officer to the Tuberculosis Dispensary of the cases so that the suitable mode of treatment might in each case be adopted. In this way the dispensary has acted as a clearing house sorting out the individual cases into groups which might be treated at

- (1) Sanatoria, i.e., early cases.
- (2) Hospital, i.e., more advanced cases.
- (3) Domiciliary cases, i.e., cases treated at home.
- (4) Dispensary cases, i.e., cases coming up regularly to the Dispensary for treatment.

Groups 3 and 4 frequently are of necessity combined.

It is not considered desirable to make any general statement as to the beneficial effects which have occurred to individuals during this, the first, year of the Tuberculosis Scheme; the period of full activity is much too short for a sound conclusion to be drawn, but the results so far are undoubtedly satisfactory.

The following tables give statistical details and analysis of the cases dealt with during 1913. It should be remembered that only insured people were legally dealt with during this period.

#### STATISTICS OF SANATORIUM BENEFIT.

Total applications for Sanatorium Benefit made by Insured Persons during 1913 :—

Men	...	...	...	...	...	107
Women	...	...	...	...	...	37
						<hr/>
Total	...	...	...	...	...	144

NOTE.—The term "Sanatorium Benefit" in the National Health Insurance Act implies treatment of any kind, whether in a Sanatorium, Hospital, Dispensary or at home.

Of this total 2 women and 3 children were dependants of Insured Persons.

In 5 cases (men 4, women 1) the application for benefit was not persisted in, and the remaining 139 persons received treatment as follows during 1913.

In 7 cases the disease was non-pulmonary.

TABLE T. I.

*New Cases treated in 1913.*

Domiciliary or Dispensary only.	52 (men 38, women 14).	10 (men 6, women 4) of whom died in 1913, 2 men left Croydon in 1913, 2 men removed from benefit in 1913.
Sanatorium only.	6 (men 4, women 2).	—
Institutional (Borough Hospital).	7 (men 2, women 5).	2 (men 1, women 1) died during 1913.
Both Domiciliary and Sanatorium.	42 (men 34, women 8).	—
Both Domiciliary and Institutional.	28 (men 23, women 5).	4 (men 3 women 1) died during 1913, 2 men left Croydon in 1913.
Sanatorium, Institutional, Domiciliary.	4 (men 2, women 2).	1 man died during 1913.
	<u>139</u>	<u>17</u>

NOTE.—Domiciliary treatment in all cases includes attention from and, in most cases, attendance at the Dispensary.

In addition to these persons, 22 persons (21 men and 1 woman) had applied for Sanatorium Benefit in 1912, and were receiving the same on January 1st, 1913.

These 22 cases received the following treatment during 1913 :—

TABLE T. II.

*Cases carried on from 1912 into 1913.*

Domiciliary or Dispensary only.	7 men	5 of whom died during 1913.
Sanatorium only.	1 woman	who removed from Croydon during 1913.
Both Sanatorium and Institutional.	1 man	1 man died during 1913
Both Domiciliary and Sanatorium.	9 men	1 man removed from Croydon during 1913, 1 of whom died during 1913.
Both Domiciliary and Institutional.	3 men	—
Discharged from Benefit.	1 man	—
	<u>22</u>	<u>9</u>

NOTE —Domiciliary treatment in all cases includes attention from and, in most cases, attendance at the Dispensary.

The total number of persons who received Sanatorium Benefit in 1913, was therefore 166 (men 128, women 38).



TABLE T. III.

*Analysis of Cases receiving treatment in Sanatoria during 1913*A.—*Cases in Sanatoria on January 1st 1913:—*

Men	...	...	...	...	9
Women	...	...	...	...	1
					<hr/>
Total	...	...	...	...	10
					<hr/>

(All pulmonary tuberculosis).

B.—*Cases discharged from Sanatoria during 1913, having completed their term of treatment:—*

Men	...	...	...	...	38
Women	...	...	...	...	7
					<hr/>
Total	...	...	...	..	45
					<hr/>

(2 were cases of non-pulmonary tuberculosis).

C.—*Cases which left Sanatoria at their own request prior to expiration of their term of treatment:—*

Men	...	...	...	...	4
Women	...	...	...	...	0
					<hr/>
Total	...	...	...	...	4
					<hr/>

(All pulmonary tuberculosis).

D.—*Cases in Sanatoria on December 31st, 1913:—*

*Men	...	...	...	...	10
Women	...	...	...	...	5
†Children	...	...	...	...	1
					<hr/>
Total	...	...	...	...	16
					<hr/>

\* 1 re-admitted, 2 previously treated at Porough Hospital,

† Dependant of insured person, non-pulmonary tuberculosis.

E.—*Total Cases sent to Sanatoria in 1913. (B. + C. + D. — A.):—*

Men	...	...	...	...	43
Women	...	...	...	...	11
Children	...	...	...	...	1
					<hr/>
Total	...	...	...	...	55
					<hr/>

(3 of these were non-pulmonary).

TABLE T. IV.

*Showing results of Treatment in Sanatoria during 1913.*

Condition on discharge from Sanatorium.					Condition on December 31st, 1913.							
					Men. Women. Tl.							
A.	Cases which completed their term of treatment,	Men. Women. Tl.			{	At work (not always, but usually original occupation) ...			22	3	25	
		Fit for work ...	26	4		30	Fit for work ...			1	0	1
							Unfit for work ...			1	0	1
							Re-admitted to Sanatorium ...			1	0	1
							Left Croydon ..			1	1	2
									<u>30</u>			
		Improved ...	3	1		4	Further improvement			1	0	1
							Relapse ...			1	0	1
							Receiving treatment at Borough Hospital ...			0	1	1
							In statu quo ...			1	0	1
						<u>4</u>						
Men ... 38	Women ... 7	Total ... 45	{	Fit for work, having had treatment at Borough Hospital ...			0	1	1			
				Receiving treatment at Borough Hospital ...			0	1	1			
				In statu quo ...			2	0	2			
				Worse ...			3	0	3			
						<u>7</u>						
Worse ...	4	0	4	{	No improvement ...			2	0	2		
					Admitted to Waddon and died there ...			1	0	1		
					Died at home ...			1	0	1		
						<u>4</u>						

B.

Cases which left at their own request.

4 Men.

2 men were fit for work on leaving and were at work on Dec. 31st, 1913.

1 man stayed only 2 days at the Sanatorium and died at home later on.

1 man was worse when he left Sanatorium and died at home later on.

TABLE T. v.

*Analysis of Cases receiving treatment at Borough Hospital, 1913.**Total Cases admitted : 47.*

Men	...	...	33	Insured	...	...	44
Women	...	...	14	Non-insured	...	...	3
			—				—
Total	...		47				47
			—				—

*Cases under treatment on December 31st, 1913.*

Men	...	...	...	...	...	...	10*
Women	...	...	...	...	...	...	6†
							—
Total	...	...	...	...	...	...	16
							—

\*Two re-admissions.

†Two had previously been in a Sanatorium.

NOTE.—With 2 exceptions all were cases of pulmonary tuberculosis.

The great majority of these patients were suffering from advanced tubercular disease, and in some cases were acutely ill on admission.

---

20 persons (16 men, 4 women) were discharged after having completed their period of treatment at the Borough Hospital during 1913.

4 persons (2 men, 2 women) discharged themselves before the expiration of their period of treatment.

3 men were admitted twice during the year, 2 of these being under treatment on December 31st, 1913.

6 persons (4 men, 2 women)—in addition to the above-mentioned cases—died at the Borough Hospital.



TABLE T. VI.  
Showing Results of Treatment at Borough Hospital during 1913.

Condition on discharge from Waddon.					Condition on December 31st, 1913.				
		Men. Women. Tl.					Men. Women. Tl.		
A.	Cases which completed their term of treatment.	Fit for work . . . 9 3 12			{	At work . . .	3	1	4
		(1 after having had treatment at a Sanatorium without further improvement).				Fit for work . .	2	2	4
						Rel. psed & sent to Sanatorium..	2	0	2
						Unfit for work...	1	0	1
						Left Croydon ...	1	0	1
									—
									12
									—
									6
									—
Men . . .	16	Improved . . .	5	1	6	Relapsed . . .	1	0	1
Women	4					In statu quo . . .	4	1	5
	—								—
	*20								6
	—								—
		In statu quo . . .	2	0	2	In statu quo . . .	1	0	1
						Deceased . . .	1	0	1
									—
									2
									—
B.	Cases which discharged themselves before expiration of treatment.	Improved. 1 woman, who has since returned to work.			{				
		In statu quo. 1 man, who has since died.							
		Worse. 1 man and 1 woman, both of whom died shortly after.							
Men . . .	2								
Women	2								
	—								
	4								

TABLE T. VII.

*Separate individuals seen from January 1st to December 31st, 1913.*

(1)	Insured Persons receiving treatment*	...	...	164
(2)	Other persons as classified in Table VIII.	...	...	87
Total ...				<hr/> 251 <hr/>

\* 5 of these (2 women and 3 children) were dependants of insured persons.

NOTE.—Nearly all of these persons were seen at least twice, and many several times. The total number of *examinations made* was **617**; **481** being made at the Dispensary and **136** at the patients' homes. These totals do not include the regular weekly examinations of the patients receiving treatment in the Borough Hospital.

In Class (1) above, 156 were cases of Pulmonary Tuberculosis, and 8 of non-pulmonary.

In Class (2) above, 34 cases were diagnosed as suffering from tuberculosis (vide Table VIII.), and of these 25 were pulmonary and 9 non-pulmonary tuberculosis.

## TABLE T. VIII.

*Classification of 87 other persons seen, April 1st—  
December 31st, 1913.*

**Insured Persons : 21.**

Men :	14	{	9 found to be not tuberculous.
		{	4 tuberculous, but did not apply for benefit.
		{	1 contact ; found not tuberculous.
Women :	7	{	4 found to be not tuberculous.
		{	3 tuberculous, but did not apply for benefit.

**Non-Insured Persons : 66.**

Men : 1—tuberculous and treated in 1914 from Dispensary.

		{	4 found to be not tuberculous.
		{	11 found tuberculous :
			8 treated by private doctors or hospitals.
			2 given Dispensary treatment, 1914.
			1 sent to Borough Hospital and died there, 1913.
		{	4 Contacts, all non-tuberculous.
		{	14 found to be non-tuberculous.
		{	10 given Dispensary treatment, 1914.
		{	5 treated by doctors or hospitals.
		{	17 Contacts ; all except one not tuberculous ; the ex- ception shortly after left Croydon.

*Total number of **Contacts** seen : 22 (Men 1, Women 4, Children 17).*

NOTE.—Nearly all these persons (except those seen as contacts) were sent up by local Doctors as cases in which the diagnosis was in doubt.



## CROYDON CORPORATION ACT, 1900.

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### PROVISIONS AS TO MILK SUPPLY.

During the year sixty-three primary samples and fifty-seven secondary samples of milk were procured and submitted for examination for Tuberculosis in accordance with the provisions of the above Act.

Of the primary samples obtained during the year fourteen were procured from milk supplies produced in the Borough, and forty-nine from milk supplies consigned to local dairymen from Wholesale Dairy Companies and farmers outside the Borough.

The fourteen samples obtained from milk produced within the Borough represented the mixed milk of two hundred and six cows, out of a total of two hundred and thirty-six cows in the Borough Cowsheds at the date on which the samples were taken.

The examination of these samples revealed the presence of tubercle bacilli in four samples. In the other ten no evidence of tubercle was found.

The samples in which tubercle bacilli were found represented the mixed milk of two herds with a total of eighty-one cows (two samples from the milk of each herd).

All the cows in the herds concerned were examined by Mr. Thrale, the veterinary surgeon. None of the cows were clinically tuberculous, but several had slightly abnormal udders, not typically tuberculous udders, but sufficiently abnormal to be regarded as suspicious.

Secondary samples were obtained from the milk of all the cows with suspicious udders, but in no case was tubercle bacilli found.

Further samples were obtained from the mixed milk of all the cows, each sample representing the milk of a number (usually eight or ten cows). By this means the source of infection was in the case of one herd narrowed down to one or more of ten cows. Separate samples were obtained from each cow, and on examination tubercle bacilli were found in one; the others revealed no evidence of tuberculosis.

The cow from which the tuberculous milk was drawn was slaughtered in Croydon and found to be extensively affected with tuberculosis. This animal had a normal udder, and was not suspected when the veterinary inspection was made.

In the case of the other herd the same procedure had to be adopted, as the samples obtained from the milk of the suspected cows in the first instance revealed no evidence of tuberculosis. The result in this case was inconclusive on account of changes in the herd in the interval between obtaining the samples and the result of the examination being known.

Final samples obtained, representing the mixed milk of all the cows in both these herds on examination showed no evidence of tuberculosis.

The forty-nine samples of country produced milk were obtained at the various railway stations or at the place of delivery, from churns containing a total of eight hundred and eighty-two gallons, each sample representing on an average eighteen gallons.

The result of the examination of these samples revealed no evidence of tuberculosis in forty-five cases, while tubercle bacilli were found in the remaining four.

The farms from which the tuberculous samples were obtained were visited by Mr. Thrale, the veterinary surgeon, with the following results :—

*No. 1.*

Thirty cows were examined on this farm. All were good class, well nourished cows, with normal udders, housed in a substantially constructed shed, kept very clean, with dairy fitted with cooling apparatus, separate from shed. None of the cows were in any way suspicious, but the farmer stated that he had sold two cows for slaughter about a fortnight previous to the time of visit, one of which he knew was found to be badly affected with tuberculosis on slaughter.

Further samples of this milk procured on delivery revealed no evidence of tuberculosis on examination.

*No. 2.*

Twenty-five cows of a fairly good class, housed under fair conditions were examined, four being regarded as suspicious by Mr. Thrall. Separate samples of milk were obtained and submitted for examination, three of these samples revealed no evidence of tuberculosis, in the fourth tubercle bacilli were found.

The cow from which this sample was drawn was the most suspicious of the four.

The Local Authority under the Diseases of Animals Acts, for the district in which the farm was situated, on being notified of the presence of a tuberculous animal on this farm, proceeded to put into operation the provisions of the Tuberculosis Order, 1913, but found that the animal in question had been sold for slaughter.

Further enquiries instituted by the Authority satisfied them that the animal had been slaughtered, but no information was forthcoming as to its condition on slaughter.

Further samples of the milk from this farm could not be obtained, as it had ceased to be consigned to the local dairyman shortly after the visit to the farm.

*No. 3.*

Thirty cows of a good class, and housed in exceptionally good sheds were examined. In no case was there any of the typical symptoms of tuberculosis, but samples were obtained from the milk of three cows which had slightly abnormal udders. The result of the examination of these samples revealed no evidence of tuberculosis.

Further samples were procured, each representing the mixed milk of a number of cows. In one of these samples representing the mixed milk of ten cows tubercle bacilli were found, and ultimately the milk of one of the ten cows was found to contain tubercle bacilli.

The Local Authority for the district in which this farm was situated proceeded under the provisions of the Tuberculosis Order, 1913, and slaughtered this cow, when she was found to be extensively tuberculous.

Samples representing the mixed milk of all the other cows showed no evidence of tuberculosis on examination.



## No. 4.

Fifty cows of a superior class housed under good conditions were examined on this farm, three of which had slightly abnormal udders, not typically tuberculous. Secondary samples from these cows and a series of other secondary samples were obtained, and though no evidence of tuberculosis was found in these samples the result in this case was inconclusive on account of changes in the herd, of which there were quite a number.

Final samples representing the milk of all the cows were submitted for examination with the result that in no case was evidence of tuberculosis found.

The proportion of secondary to primary samples is unusually large, but the difficulty of finding the affected cow in each of the foregoing cases is the explanation.

With one exception the animals examined were good class dairy cows, showing none of the characteristic symptoms of tuberculosis or tuberculosis of the udder. In no case was a typically tuberculous udder found. The exception above referred to could not be described as typically tuberculous in appearance.

Whether it was co-incidence or the effect of the provisions of the Tuberculosis Order, 1913, cannot with certainty be said, but cows with tuberculous udders, or cows clinically tuberculous were not met with.

The following tabulated statement shows the number of samples of town produced milk and country produced milk, with the number and percentage of cases in which tuberculosis was found since 1900.

Year.	Town Milk.	No. Positive.	Per Centage.	Country Milk.	No. Positive.	Per Centage.
1900	40	2	5	—	—	—
1901	1	—	—	87	5	5·7
1902	—	—	—	6	—	—
1904	30	1	3·3	—	—	—
1908	25	1	4	21	3	14·2
1911	16	1	6·2	39	6	15·4
1912	14	1	7·1	31	1	3·2
1913	14	4	28·5	49	4	8·1
Total 1900-13	140	10	7·1	233	19	8·1

Total : Town and Country 373 samples, 29 positive, or 7·7 per cent.

### MIDWIVES' ACT, 1902.

Twenty-seven midwives attended at the Town Hall for inspection, etc., during 1913. One hundred and thirty-nine visits were paid by Miss Chapman, the Inspector of Midwives, to the houses of 35 midwives.

During the year 2 registered midwives withdrew from practice, 10 left the district, and 5 new names were added, leaving 38 on the register on December 31st, 1913.

### OPHTHALMIA NEONATORUM.

This disease was made notifiable in Croydon in April, 1911. In giving instructions to midwives, special emphasis is laid on the care of the eyes and the necessity for immediate medical treatment on the least suspicion of any inflammatory condition being present.

Eighteen cases were notified during the year.

### NOTIFICATION OF BIRTHS ACT, 1907.

This Act was adopted by the Council on January 13th, and came into force on February 19th, 1908, after confirmation by the Local Government Board.

During the year 3,234 notifications were received. These births were notified as follows:—

Notified by medical men...	...	...	...	...	1,161
Notified by parents	...	...	...	...	893
Notified by certified midwives	...	...	...	...	1,181
					<hr/>
Stillborn births notified	...	...	...	...	3,235
					80
					<hr/>
Total	...	..	...	...	3,315
					<hr/>

The number of births which actually occurred in the borough during the year was 3,890. The number of births notified therefore amounted to 85 per cent. of the total.

The following measures are adopted with a view to diminishing the mortality among young infants.

All houses where births have taken place are visited by one of the health visitors, if the home circumstances are such as to make it probable that any advice given will be acceptable or necessary. No hard and fast rule is drawn, but an endeavour is made to include all houses where a medical man is not likely to be in attendance for more than ten days after the confinement of the mother. The number of visits paid during 1913, amounted to 5,554. In most instances it is not possible to make more than two visits during the first six months of life.

Other means to check infantile mortality in Croydon include inquires into deaths under one year of age, and the very general dissemination of leaflets. A special handbill has been prepared in connection with puerperal fever and other accidents of childbirth, clothing of infants, the feeding and care of infants, and summer diarrhœa. Health lectures or talks to mothers have also been very generally given by members of the staff during the past 10 years, and as many as 417 addresses have been given during that period.

During 1913 the Council directed a special enquiry to be made into the infant mortality in the West Ward of the borough. A report made during 1914, in consequence of the action of the Council will be given in detail in the Annual Report next year.

## **CUSTOMS AND INLAND REVENUE ACTS.**

No application under Section 26, 53, and 54 Vict., c., 8, was received during the year

## **DISINFECTION.**

During the year 2,213 rooms, 12 hospital wards and contents thereof, 46 school class rooms, 7 schools (all departments), 4 departments of schools, 2 sheds, 2 vehicles, Municipal Lodging House (twice), and 14,874 articles were disinfected.

The articles disinfected were as follows:—636 beds, 2,036 blankets, 674 bolsters, 1,823 books (including 688 library books), 323 bottles, 45 caps, 13 carpets, 268 coats, 80 curtains, 199 cushions, 22 costumes, 717 counterpanes, 109 dressing gowns, 1 mat, 799 mattresses, 98 palliasses, 1,978 pillows, 142 rugs, 244 shawls, 607 sheets, 144 trousers, 85 waistcoats, 3,831 other articles. Total 14,874.



TABLE I.  
For whole District, for Calendar Year 1913.

Year.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REG. IN THE DISTRICT.		TRANSFER- ABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.*	of Non-residents in the registered in the District.	of Residents not registered in the District	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.*					Number.	Rate per 1,000 Nett Births.	Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1906.	151,011	3886		25·7	2085	13·8	160	94	485	125	2019	13·4
1907.	154,342	3967		25·7	1953	12·5	149	97	371	94	1901	12·3
1908.	157,698	4017		25·5	2053	13·0	137	105	398	99	2021	12·8
1909.	161,078	3938		24·4	1974	12·3	165	70	313	79	1879	11·7
1910.	166,884	3810		22·8	1817	10·9	145	111	331	87	1783	10·7
1911.	170,451	3760	3748	22·0	2069	12·1	177	130	395	105	2022	11·9
1912.	174,257	3861	3859	22·1	1934	11·1	200	159	297	77	1893	10·8
1913.	178,094	3890	3895	21·8	2110	11·8	204	190	368	94	2096	11·7

\* Rates calculated per 1,000 of estimated population.

CENSUS, 1911.

Total population at all ages, 169,551.

Number of inhabited houses, 34,363.

Average number of persons per house, 4·9.

Area of District in acres (exclusive of area covered by water), 9,012.

TABLE II.

Cases of Infectious Disease notified during the Year 1913.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.								TOTAL CASES REMOVED TO HOSPITAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	At all Ages.	At Ages—Years.						West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.		Institution cases which could not be distributed.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Small-pox .. .. .	..	..	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 & upw.d.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

The Borough (Fever) Isolation Hospital is situated in the West Ward.  
The Croydon and Wimbledon (Smallpox) Isolation Hospital is at North Cheam.

\* One of these cases was a para typhoid.  
+Death certified to be Tubercular Meningitis.

‡ The condition of these two cases was found subsequently not to be that of Poliomyelitis.

TABLE III

Causes of, and ages at, Death during Year ending December 31st, 1913, excluding Deaths of Strangers at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Purley Cottage Hospital, Norwood Cottage Hospital, 93, Central Hill (Servants' Reformatory), and adding Deaths of Croydon Residents known to have occurred outside the District.

No.	CAUSE	LOCALITIES.								Institution & Street Deaths which could not be distributed.	Total Institution Deaths distributed and not distributed.	Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.	
		LOCALITIES.																						
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.															
I.—General Diseases.																								
1	Enteric Fever ...	...	1	...	...	4	...	...	1	...	6	5	1	...	...	...	1	...	1	...	...	3	...	
2	Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3	(A B.) Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(A) Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(B) Mediterranean Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
4	Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(A) Vaccinated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(B) Not vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(C) Doubtful ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
6	Measles ...	19	13	5	3	5	7	1	5	...	58	31	27	...	...	...	21	10	2	...	...	...	...	
7	Scarlet Fever ...	3	...	...	...	...	...	...	...	...	3	2	1	...	...	...	2	...	1	...	...	...	...	
8	Whooping Cough ...	6	4	2	1	4	5	...	1	...	23	10	13	...	...	...	2	1	...	...	...	...	...	
9	(A) Diphtheria ...	7	...	1	...	3	3	2	...	...	16	12	4	...	...	...	3	...	...	...	...	...	...	
	(B.C.) Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(B) Membranous laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(C) Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
10	Influenza...	6	2	3	4	5	3	1	2	...	26	9	17	...	...	...	...	1	2	3	7	13	...	
11	Miliary Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
12	Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
13	Cholera Nostras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
14	Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
15	Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
16	Yellow Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
17	Leprosy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
18	Erysipelas	1	1	1	2	...	...	...	1	...	6	1	5	...	...	...	...	1	1	1	...	1	1	





TABLE III—continued.

No.	CAUSE.	LOCALITIES.								Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thorn- ton Heath.												
37	Syphilis ...	2	2	2	...	...	...	...	...	...	6	5	1	4	1	...	...	...	1	...	...
38	(A.B.C.) Other Venereal Diseases (A) Soft Chancre (B) Gonococcus Infection (C) Purulent Ophthalmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39	Cancer of the Buccal Cavity	1	2	2	1	1	1	...	2	...	10	7	3	...	...	...	...	...	...	6	4
40	Cancer of the Stomach, Liver, &c.	12	13	6	9	4	6	...	4	...	54	16	38	...	...	...	...	...	5	17	32
41	Cancer of the Peritoneum, Intestines & Rectum	7	5	9	4	7	5	...	2	...	43	18	25	...	...	...	...	...	4	19	20
42	Cancer of the Female Genital Organs	6	5	6	1	3	2	...	3	...	29	...	29	...	...	...	...	...	2	19	8
43	Cancer of the Breast	4	5	2	4	3	6	...	3	...	31	...	31	...	...	...	...	...	7	18	6
44	Cancer of the Skin	2	...	...	...	1	...	...	3	...	3	3	...	...	...	...	...	...	1	1	1
45	Cancer of other or unspecified Organs	7	10	5	6	4	2	1	1	...	36	25	11	...	...	...	...	2	4	19	11
46	(A.B.C.) Other Tumours (situation undefined)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Angioma ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Adenoma ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Other Tumours included under 46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47	Rheumatic Fever ...	1	1	...	1	1	3	...	...	...	7	1	6	...	...	...	4	...	2	...	1
48	(A.B.) Chronic Rheumatism, Osteo-arthritis (A) Chronic Rheumatism (B) Osteo-arthritis (C) Gout	1	...	...	1	1	...	...	2	...	1	2	1	...	...	...	...	...	1	1	5
49	Scurvy ...	1	1	...	...	...	1	...	...	...	6	1	4	...	...	...	...	...	...	2	1
50	Diabetes ...	...	8	3	...	2	3	1	1	...	18	12	6	...	...	...	1	...	3	7	7
51	Exophthalmic Goitre	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...
52	Addison's Disease ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53	(A.B.) Leucocythæmia, Lymphadenoma (A) Leucocythæmia (Leuchæmia) ... (B) Lymphadenoma	...	...	...	...	2	1	...	...	...	3	1	2	...	...	...	1	...	1	1	...





TABLE III—continued.

No.	CAUSE.	LOCALITIES.								Institution & Street Deaths which could not be distributed.	Total Institution Deaths distributed and not distributed.	Inquest Cases	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.
		LOCALITIES.																					
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.														
67	General paralysis of the insane	1	2	3	...	1	3	...	1	2	10	...	13	10	3	...	...	...	...	...	8	5	...
68	Other forms of mental alienation	...	1	...	...	...	...	...	...	1	2 (1)	...	3	1	2	...	...	...	...	...	2	1	...
69	Epilepsy ...	3	2	...	...	2	...	...	1	2	6 (1)	...	12	8	4	...	...	...	...	...	6	1	...
70	(A.B.) Convulsions (non-puerperal; 5 yrs & over)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Epileptiform convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Others included under 70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71	(A.B.) Infantile convulsions (under 5 years)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Convulsions with teething	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Other infantile convulsions	9	2	1	4	1	3	...	4	...	...	...	24	18	6	...	...	1	...	...	...	...	...
72	Chorea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
73	(A.B.) Hysteria, Neuralgia, Neuritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Hysteria, Neuralgia, Sciatica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Neuritis	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
74	(A.B.C.D.) Other diseases of the nervous system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Idiocy, Imbecility	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Cretinism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Cerebral tumour	1	...	...	...	...	...	...	...	...	2 (1)	...	3	1	3	...	...	...	...	...	1	1	...
	(D) Other diseases included under 74	...	1	...	...	...	...	...	...	...	7	...	7	5	2	...	...	...	...	...	2	3	2
75	Diseases of the eyes and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
76	(A) Mastoid disease	2	...	...	...	1	...	...	...	...	3	...	3	2	1	...	...	...	...	...	...	...	...
76	(B) Other diseases of the ears	1	1	1	...	...	...	...	1	...	3	...	4	1	3	...	...	...	...	...	...	...	...
III.—Diseases of the Circulatory System.																							
77	Pericarditis	2	...	...	1	...	...	...	...	...	2	...	3	3	...	...	...	...	...	...	...	2	1
78	(A.B.C.) Acute endocarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Acute myocarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Infective endocarditis	...	...	...	3	...	...	...	...	...	(1)	...	...	2	1	...	...	...	...	...	1	1	
	(C) Other acute endocarditis	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...

79	(A) Valvular disease	...	32	23	10	18	6	33	9	14	1	15	146	70	76	...	1	1	3	4	21	45	71
79	(B) Fatty degeneration of the heart	...	4	...	3	4	1	5	...	1	1	13	19	7	12	...	...	...	...	2	2	9	8
79	(C) Other organic disease of the heart	...	2	...	2	1	3	5	4	3	...	3	22	9	13	...	...	...	...	1	1	7	12
80	Angina pectoris	...	...	1	3	...	2	4	3	...	...	5	13	8	5	...	...	...	...	2	4	4	7
81	(A) Aneurysm	...	...	1	...	3	...	1	1	1	...	2	7	6	1	...	...	...	...	1	3	3	3
81	(B) Arterial sclerosis	...	9	14	7	8	13	9	2	5	1	5	68	31	37	...	...	...	...	...	...	12	56
81	(C) Other diseases of arteries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
82	(A) Cerebral embolism and thrombosis	...	1	3	...	2	2	5	4	...	...	2	17	5	12	...	...	...	...	2	2	...	12
82	(B) Other embolism and thrombosis	...	1	1	...	...	...	1	1	1	...	1	5	1	4	...	...	...	...	3	...	...	1
83	(A.B.C.D) Diseases of the veins (Varices, Hæmorrhoids, Phlebitis, &c.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Phlebitis	...	...	1	...	...	...	...	2	...	...	1	3	3	...	1	...	...	...	...	2	...	...
	(B) Varix	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Pylephlebitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(D) Varicocele	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
84	(A) Status lymphaticus	...	...	1	...	1	...	...	...	...	...	2	2	1	1	...	...	...	...	...	...	...	...
84	(B) Other diseases of the lymphatic system	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
85	(A.B.C.) Hæmorrhage; other diseases of the circulatory system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Functional disease of the heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Epistaxis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Other diseases included under 85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV.—Diseases of the Respiratory System.																							
86	Diseases of the nasal fossæ	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
87	(A.B.C.) Diseases of the larynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Laryngismus stridulus	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...
	(B) Laryngitis	...	...	1	...	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	...
	(C) Other diseases of larynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
88	Diseases of the thyroid body	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89	(A.B.) Bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
&	(A) Bronchiectasis, Bronchial Catarrh, &c.	...	33	25	11	15	13	29	5	13	...	2	145	72	73	...	...	...	...	...	...	...	...
90	(B) Other bronchitis	...	15	8	5	7	7	6	2	12	...	32(13)	62	32	30	...	2	18	3	7	21	4	91
91	Broncho-pneumonia	...	...	...	...	...	...	...	...	...	...	13(3)	7	...	...	...	2	...	...	2	4	12	12
92	(A.B.) Lobar and undefined.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Lobar pneumonia	...	16	7	4	9	5	10	5	12	1	16(1)	69	41	28	...	4	4	2	7	15	3	21
	(B) Pneumonia (type not stated)	...	4	4	...	4	1	2	...	...	...	2(4)	15	7	8	...	1	...	...	1	...	...	5



TABLE III—continued.

No.	CAUSE.	LOCALITIES.							Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.											
93	(A.B.) Pleurisy	...	1	...	...	...	...	...	...	2	...	2	...	...	1	...	...	1	...	...
94	(A) Emphysema ...	2	...	...	...	1	1	...	...	4	3	1	...	...	...	...	...	1	...	...
	(B) Other pleurisy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
95	(A.B.C.D.) Pulmonary congestion, Pulmonary apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Pulmonary apoplexy and infarction	1	...	...	...	...	1	...	...	2	1	1	...	...	...	...	1	...	...	...
	(B) Pulmonary cedema and congestion	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
	(C) Hypostatic pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
96	(D) Collapse of lung (3 months and over)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gangrene of the lung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
97	Asthma ...	1	...	1	...	...	1	...	...	3	2	1	...	...	...	...	...	...	...	...
98	Pulmonary emphysema	...	2	...	1	1	...	...	...	4	4	...	...	...	...	...	1	...	2	...
99	(A) Fibroid disease of lung	...	1	...	...	1	2	...	...	4	3	1	...	...	...	...	...	1	...	...
	(B) Other diseases of the respiratory system	...	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...
V.—Diseases of the Digestive System.																				
99	(A) Diseases of the teeth and gums	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
99	(B C.D.) Other diseases of the mouth and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Thrush, Aphthous Stomatitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Parotitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100	(C) Other diseases included under 99	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A.B.C.) Diseases of pharynx, Tonsillitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
101	(A) Tonsillitis	1	1	...	1	...	...	...	...	3	1	2	...	...	...	2	1	...	...	...
	(B) Ludwig's angina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Other diseases of the pharynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
102	Diseases of œsophagus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Perforating ulcer of stomach	2	1	...	...	...	1	...	...	6	2	4	...	...	...	...	...	4	...	2





TABLE III—continued.

No.	CAUSE.	LOCALITIES.								Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.												
	VI.— <i>Non-Veneral Diseases of the Genito-Urinary System and Annexa.</i>									Institution & Street Deaths which could not be distributed.	Total Institution Deaths distributed and not distributed.										
119	Acute nephritis ... ..	3	1	...	...	1	...	...	...	...	4	5	3	2	...	1	...	1	1	2	...
120	(A.B.) Bright's disease (A) Bright's disease as in 1901 list... (B) Nephritis unqualified, 10 years and over and Uremia ... ..	9	5	9	9	8	8	1	4	1	16 (9)	54	32	22	1	...	2	...	5	18	28
121	Chyluria... ..	...	1	...	...	...	...	...	1	...	...	2	2	...	...	...	...	...	1	...	1
122	(A.B.C.D.) Other diseases of the kidney and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(A) Abscess of kidney ... ..	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	1	...
	(B) Cystic disease ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(C) Suppression of urine ... ..	...	...	...	...	...	...	...	...	...	4 (1)	5	3	2	...	...	...	3	1	1	1
123	(D) Other diseases included under 122	1	1	...	...	1	2	...	...	...	1	1	...	1	...	...	1	...	...	...	...
124	Calculi of the urinary passages	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...
125	Diseases of the bladder ... .. (A.B.) Diseases of the urethra, Urinary abscess, &c.	...	...	1	...	1	...	...	...	...	1	2	2	...	...	...	...	...	...	1	1
	(A) Perineal abscess ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(B) Other diseases of urethra, &c. ... ..	1	...	...	2	...	...	...	...	...	2	3	3	...	...	...	...	1	2	2	3
126	Diseases of the prostate ... ..	...	2	...	1	1	...	...	1	...	3 (1)	5	5	...	...	...	...	...	...	...	...
127	Non-venereal diseases of male genital organs	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
128	(A.B.) Uterine hæmorrhage (non-puerperal) (A) Menorrhagia ... .. (B) Other uterine hæmorrhage ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
129	Uterine tumour (non-cancerous) ... ..	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...





TABLE III—continued.

No.	CAUSE	LOCALITIES.								Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.	
		LOCALITIES.																				
		West.	North.	Central.	East.	South.	South Norwood.	Upper Norwood.	Thornton Heath.													
VIII.—Diseases of the Skin and of the Cellular Tissue.																						
142	(A) Senile gangrene	...	...	1	...	...	1	...	...	2	2	1	...	...	...	...	...	...	...	...	2	
142	(B.C.D.) Gangrene, other types	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(B) Noma, Gangrene of mouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(C) Noma pudendi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(D) Other gangrene	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
143	Carbuncle, Boil	...	...	...	...	...	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...	
144	(A.B.) Phlegmon, acute abscess	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(A) Phlegmon	...	1	...	...	...	...	...	...	1 (1)	2	2	...	...	...	...	...	...	...	...	...	
	(B) Acute abscess	1	...	...	...	...	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...	
145	(A.B.C.D.) Diseases of the integumentary system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(A) Ulcer, Bed sore	...	...	...	1	2	1	...	...	4 (1)	5	2	3	...	...	...	...	...	...	...	...	
	(B) Eczema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(C) Pemphigus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(D) Other disease of integumentary system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
IX. — Diseases of the Bones and of the Organs of Locomotion.																						
146	Diseases of the bones	2	...	...	1	...	...	...	...	3	3	2	1	...	...	...	1	...	2	...	...	
147	Diseases of the joints	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
148	Amputations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
149	Other diseases of locomotor system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
X. — Malformation.																						
150	(A.B.C.D.) Congenital malformations	...	...	1	1	...	...	...	...	...	2	1	1	1	...	...	...	...	...	...	...	
	(A) Congenital hydrocephalus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(B) Phimosi	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(C) Congenital malformation of heart	2	4	...	...	...	1	...	...	3	12	10	2	9	2	1	...	...	...	...	...	
	(D) Other congenital malformations	3	1	...	...	...	1	...	...	5	7	2	5	7	...	...	...	...	...	...	...	





No.	CAUSE.	LOCALITIES.							Inquest Cases.	Total all Ages.	Male all Ages.	Female all Ages.	0-1.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 and upwards.
		West.	North.	Central.	East.	South.	South Norw. od.	Upper Norwood.	Thornton Heath.											
172	Injury by fall	7	2	2	1	1	3	1	..	8	17	8	..	..	1	1	..	..	3	12
173	Injury in mines and quarries	..	..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..
174	Injury by machines	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
175	Injury by other crushing (vehicles, railways, landslides, &c.)	8	1	1	4	2	4	1	..	21	21	4	..	..	1	5	4	6	2	3
176	Injury by animals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
177	Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178	Excessive cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179	Effects of heat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
180	Lightning	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..
181	Electricity (lightning excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
182	Homicide by firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
183	Homicide by cutting and piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
184	Homicide by other means	1	1	..	..	..	..	..	..	2	2	1	..	..	..	..	1	..	..	..
185	Fractures (cause not specified)	..	..	..	..	..	..	..	..	2	2	1	1	..	..	..	..	..	..	..
186	Other violence	..	..	..	..	2	..	..	..	2	2	1	1	..	..	..	..	..	1	..
NIV.— <i>Ill-Defined Causes.</i>																				
187	Dropsy	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	2	..
188	(A) Syncope (aged 1 year and under 70)	..	1	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..
188	(B) Sudden death (not otherwise defined)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189	Heart failure (aged 1 year and under 70)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189	(B.C.D.E.) (other ill-defined causes)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(B) Atrophy, debility, marasmus (aged 1 year and under 70)																				
(C) Teething																				
(D) Pyrexia																				
(E) Other ill defined deaths																				
(F) Cause not specified																				
189	TOTALS	451	349	216	226	234	319	98	182	21	2096	1045	1051	368	96	72	72	275	437	698

The total Institution Deaths include those of strangers occurring within the Borough. Deaths of such strangers occurring at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Cottage Hospital, Purley, Cottage Hospital, Upper Norwood, and 99, Central Hill (Servants' Reformatory), are excluded from all other columns of the Table. The numbers so excluded are in brackets.



TABLE IV.

County Borough of Croydon—Whole District.

## INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under One Year.
All Causes.														
Certified ... ..	...	...	...	...	82	29	23	18	152	67	70	46	33	368
Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Small-pox ... ..					...	..	...	...	...	...	...	...	...	..
Chicken-pox ... ..					...	...	...	...	...	...	...	..	...	...
Measles... ..					...	...	...	...	...	...	1	3	3	7
Scarlet Fever ... ..					...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..					...	...	...	...	...	3	4	2	2	11
Diphtheria and Croup... ..					...	...	...	...	...	1	...	...	...	1
Erysipelas ... ..					...	...	..	...	...	1	...	...	...	1
Tuberculous Meningitis ... ..					...	...	...	...	...	...	...	1	4	5
Abdominal Tuberculosis ... ..					...	...	...	...	...	...	3	2	...	5
Other Tuberculous Diseases ... ..					...	...	...	...	...	...	...	1	1	2
Meningitis(not Tuberculous) .. ..					...	...	..	...	...	...	2	...	...	2
Convulsions ... ..					3	5	1	2	11	5	4	2	2	24
Laryngitis ... ..					..	...	...	...	...	...	2	2	1	5
Bronchitis ... ..					...	1	2	3	6	6	3	4	...	19
Pneumonia (all forms) ... ..					...	1	2	1	4	5	2	9	9	29
Diarrhoea ... ..					...	...	...	...	...	...	2	1	...	3
Enteritis ... ..					...	...	2	1	3	14	19	9	2	47
Gastritis ... ..					...	...	1	2	3	6	4	2	...	15
Syphilis ... ..					1	...	...	...	1	2	1	...	...	4
Rickets ... ..					...	..	...	...	...	...	...	...	1	1
Suffocation, overlying ... ..					2	...	...	...	2	1	3	...	...	6
Injury at Birth ... ..					5	...	...	...	5	...	...	...	...	5
Atelectasis ... ..					5	...	...	...	5	...	...	...	...	5
Congenital Malformations ... ..					8	1	2	...	11	2	4	...	...	17
Premature Birth ... ..					48	9	6	5	68	9	2	..	...	79
Atrophy, Debility and Marasmus ... ..					5	10	5	3	23	7	10	4	4	48
Other causes ... ..					5	2	2	1	10	5	4	4	4	27
					82	29	23	18	152	67	70	46	33	368

Nett Births in the year {	legitimate, 3686	Nett Deaths in the year of {	legitimate infants 339.
	illegitimate, 204.		illegitimate infants, 29

TABLE IV.—*Continued.**County Borough of Croydon—West Ward District.*

## INFANT MORTALITY.

1913. Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under 1 Year.
<b>All Causes.</b>														
Certified	...	...	...	...	16	6	6	6	34	15	18	14	9	90
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	1	1	1	3
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	2	...	...	2	4	1	2	...	9
Laryngitis	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	..	...	...	...	...	...	...	1	1	1	2	1	..	5
Pneumonia (all forms)	...	...	...	...	...	...	...	...	..	1	...	2	4	7
Diarrhoea	...	...	...	..	...	...	...	...	...	...	1	1	...	2
Enteritis	...	...	...	..	...	...	1	1	2	2	6	3	...	13
Gastritis	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Syphilis	...	...	...	...	1	...	...	...	1	1	...	...	...	2
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	..	...	...	...	...	...	...	...	...	...	1	...	...	1
Injury at birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	2	...	...	...	2	1	...	...	...	3
Premature Birth	...	...	...	...	13	1	2	4	20	2	...	...	...	22
Atrophy, Debility, and Marasmus	...	...	...	...	...	3	2	...	5	1	4	1	2	13
Other causes	...	...	...	...	...	...	1	...	1	...	1	2	1	5
					16	6	6	6	34	15	18	14	9	90

Nett Births in the year { legitimate, 757.  
 { illegitimate, 43.

Nett Deaths in the year of { legitimate infants, 80.  
 { illegitimate infants, 10.

TABLE IV.—*Continued.**County Borough of Croydon—North Ward District.*

## INFANT MORTALITY.

1913. Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under 1 Year.
All Causes.														
Certified	...	...	...	...	20	4	5	1	30	12	13	8	6	69
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	1	...	...	...	1	...	...	...	1	2
Laryngitis	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Bronchitis	...	...	...	...	...	...	1	...	1	...	...	3	...	4
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	1	1	1	3
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	5	1	1	1	8
Gastritis	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Syphilis	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	2	...	...	...	2	1	1	...	...	4
Injury at birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	2	...	...	...	2	...	...	...	...	2
Congenital Malformations	...	...	...	...	1	...	1	...	2	...	2	...	...	4
Premature Birth	...	...	...	...	10	3	2	...	15	2	1	...	...	18
Atrophy, Debility, and Marasmus	...	...	...	...	2	1	1	1	5	1	2	1	...	9
Other causes	...	...	...	...	2	...	...	...	2	2	...	...	...	4
					20	4	5	1	30	12	13	8	6	69

Nett Births in the year { legitimate, 796.  
 illegitimate, 51.

Nett Deaths in the year of { legitimate infants, 67.  
 illegitimate infants, 2.



TABLE IV.—*Continued.*  
*County Borough of Croydon—Central Ward District.*  
INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under One Year.
All Causes.														
Certified	...	...	...	...	5	3	2	1	11	8	9	4	4	36
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	...	1	...	1	...	...	...	...	1
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Bronchitis	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	2	3	1	...	6
Gastritis	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Syphilis	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Premature Birth	...	...	...	...	3	1	...	...	4	1	1	...	...	6
Atrophy, Debility and Marasmus	...	...	...	...	1	2	1	1	5	...	...	...	1	6
Other causes	...	...	...	...	...	...	...	...	...	2	2	...	...	4
					5	3	2	1	11	8	9	4	4	36

Nett Births in the year {  
legitimate, 321  
illegitimate, 11.

Nett Deaths in the year of {  
legitimate infants 30.  
illegitimate infants, 6.

TABLE IV.—*Continued.**County Borough of Croydon—East Ward District.*

## INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under One Year.
<b>All Causes.</b>														
Certified	...	...	...	...	8	3	2	2	15	10	4	3	5	37
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Diphtheria and Croup...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	1	...	...	...	1	1	1	...	1	4
Laryngitis	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Bronchitis	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Pneumonia (all forms)	...	...	...	...	...	...	1	...	1	...	1	...	3	5
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Gastritis	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Suffocation, overtiring	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	1	1	1	...	3	1	...	...	...	4
Premature Birth	...	...	...	...	4	...	...	1	5	1	...	...	...	6
Atrophy, Debility and Marasmus	...	...	...	...	1	1	...	1	3	3	...	...	...	6
Other causes	...	...	...	...	...	1	...	...	1	1	...	...	...	2
					8	3	2	2	15	10	4	3	5	37

Nett Births in the year { legitimate, 381.  
 { illegitimate, 21.

Nett Deaths in the year of { legitimate infants 34.  
 { illegitimate infants, 3.

TABLE IV.—*Continued.*

County Borough of Croydon—South Ward District.

## INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under One Year.
<b>All Causes.</b>														
Certified ... ..					9	2	3	...	14	7	9	2	5	37
Uncertified ... ..					...	...	...	...	...	...	...	..	...	...
Small-pox ... ..					...	..	...	...	...	...	...	...	...	...
Chicken-pox ... ..					...	...	...	...	...	...	...	...	..	...
Measles... ..					...	...	...	...	...	...	..	...	...	...
Scarlet Fever ... ..					...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..					...	..	...	...	...	...	1	...	1	2
Diphtheria and Croup... ..					...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..					...	...	..	...	...	...	...	...	...	...
Tuberculous Meningitis ... ..					...	...	...	...	...	...	...	...	1	1
Abdominal Tuberculosis ... ..					...	...	...	...	...	...	...	...	...	..
Other Tuberculous Diseases ... ..					...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> ) .. ..					...	...	..	...	...	...	...	...	...	...
Convulsions ... ..					...	...	...	...	...	...	1	...	...	1
Laryngitis .. ..					..	...	...	...	...	...	...	...	...	..
Bronchitis ... ..					...	...	...	...	...	1	...	...	...	1
Pneumonia (all forms) ... ..					...	...	...	...	...	1	...	1	...	2
Diarrhoea ... ..					...	...	...	...	...	...	1	...	...	1
Enteritis ... ..					...	...	1	...	1	1	2	...	...	4
Gastritis ... ..					...	...	1	...	1	1	1	1	...	4
Syphilis ... ..					...	...	...	...	...	...	...	...	...	...
Rickets ... ..					...	..	...	...	...	...	...	...	...	...
Suffocation, overlying ... ..					...	...	...	...	...	...	...	...	...	...
Injury at Birth ... ..					2	...	...	...	2	...	...	...	...	2
Atelectasis ... ..					...	...	...	...	...	...	...	...	...	...
Congenital Malformations ... ..					1	...	...	...	1	...	1	...	...	2
Premature Birth ... ..					3	1	1	...	5	2	...	...	...	7
Atrophy, Debility and Marasmus .. ..					1	1	...	...	2	1	2	...	1	6
Other causes ... ..					2	...	..	...	2	...	...	...	2	4
					9	2	3	..	14	7	9	2	5	37

Nett Births in the year { legitimate, 326.  
 illegitimate, 11.

Nett Deaths in the year of { legitimate infants 33.  
 illegitimate infants, 4.



TABLE IV.—*Continued.**County Borough of Croydon—South Norwood Ward District.*

## INFANT MORTALITY.

1913. Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under 1 Year.
<b>All Causes.</b>														
Certified	...	...	...	...	18	4	1	6	29	5	10	7	3	54
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	1	1	1	...	3
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Convulsions	...	...	...	...	...	2	...	...	2	...	1	...	...	3
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Bronchitis	...	...	...	...	...	1	...	2	3	1	1	...	...	5
Pneumonia (all forms)	...	...	...	...	...	...	...	1	1	1	...	2	...	4
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	2	3	...	1	6
Gastritis	...	...	...	...	...	...	...	2	2	...	...	...	...	2
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Injury at birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	3	...	...	...	3	...	...	...	...	3
Congenital Malformations	...	...	...	...	2	...	...	...	2	...	...	...	...	2
Premature Birth	...	...	...	...	13	1	...	...	14	...	...	...	...	14
Atrophy, Debility, and Marasmus	...	...	...	...	...	...	1	...	1	...	2	1	...	4
Other causes	...	...	...	...	...	...	...	1	1	...	...	2	...	3
					18	4	1	6	29	5	10	7	3	54

Nett Births in the year { legitimate, 575.  
 { illegitimate, 19.

Nett Deaths in the year of { legitimate infants, 52.  
 { illegitimate infants, 2

TABLE IV.—*Continued.*

County Borough of Croydon—Upper Norwood Ward District.

INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under One Year.
All Causes.														
Certified	...	...	...	...	3	1	1	...	5	1	...	2	...	8
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	...	2	...	2
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	...	...	...	...	2	...	...	...	2	...	...	...	...	2
Atrophy, Debility and Marasmus	...	...	...	...	...	1	...	...	1	...	...	...	...	1
Other causes	...	...	...	...	...	...	1	...	1	...	...	...	...	1
					3	1	1	..	5	1	...	2	...	8

Nett Births in the year { legitimate, 112.  
illegitimate, 31.

Nett Deaths in the year of { legitimate infants 6.  
illegitimate infants, 2,

TABLE IV.—*Continued.**County Borough of Croydon—Thornton Heath District.*

## INFANT MORTALITY.

1913. Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths Under 1 Year.
<b>All Causes.</b>														
Certified	...	...	...	...	3	6	3	2	14	9	7	6	1	37
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Convulsions	...	...	...	...	1	1	...	2	4	...	...	...	...	4
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	1	...	1	1	...	...	...	2
Pneumonia (all forms)	...	...	...	...	...	1	1	...	2	2	...	...	...	4
Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...	...	...	...	...	...	...	...	2	3	3	...	8
Gastritis	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	1	...	...	...	1	...	...	...	...	1
Premature Birth	...	...	...	...	...	2	1	...	3	1	...	...	...	4
Atrophy, Debility, and Marasmus	...	...	...	...	...	1	...	...	1	1	...	1	...	3
Other causes	...	...	...	...	1	1	...	...	2	...	1	...	1	4
					3	6	3	2	14	9	7	6	1	37

Nett Births in the year { legitimate, 418.  
 illegitimate, 7

Nett Deaths in the year of { legitimate infants, 37.  
 illegitimate infants, 0.



TABLE V.

Table showing the number of cases notified and deaths from the principal zymotic diseases for the Year 1913 and ten preceding Years.

DISEASE.	1913.		1912.		1911.		1910.		1909.		1908.		1907.		1906.		1905.		1904.		1903.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Non-notifiable.																						
Small Pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever .. ..	470	3	476	2	468	7	759	7	727	9	534	5	661	11	425	8	416	11	291	8	214	2
Diphtheria and (1) Meml. Croup ..	451	16	767	25	514	37	267	21	356	24	405	37	286	40	304	40	266	25	312	24	215	2
(2) Erysipelas .. ..	107	6	84	6	79	5	69	1	92	3	60	5	73	4	68	2	78	5	68	2	59	18
Puerperal Fever .. ..	6	4	10	3	12	4	8	1	16	5	10	5	7	4	9	2	11	5	9	3	7	4
Enteric Fever .. ..	32	6	32	7	24	7	26	..	21	3	52	5	19	1	34	5	34	4	21	5	32	1
Simple Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Tuberculosis (3) .. ..	519	202	312	140	240	165	130	135	139	152	106	150	13	160	96	173	75	162	129	142	2	..
Diarrhoea and Enteritis .. ..	..	85	..	58	..	147	..	51	..	45	..	75	..	56	..	203	..	74	..	130	..	151
Measles .. ..	..	58	..	31	..	29	..	31	..	21	..	92	..	8	..	37	..	24	..	62	..	51
Whooping Cough .. ..	..	23	..	13	..	38	..	20	..	30	..	29	..	32	..	28	..	31	..	15	..	26
Influenza .. ..	..	26	..	18	..	14	..	25	..	59	..	52	..	31	..	20	..	30	..	27	..	58
Bronchitis, Pneumonia, and ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28
Pleurisy .. ..	..	297	..	250	..	280	..	251	..	323	..	282	..	316	..	218	..	302	..	314	..	247

(3) Voluntary Notification, 1903-09. (1) Notifiable since May, 1897. (2) Notifiable since January, 1900.  
Poor Law Cases, Compulsorily Notifiable 1st Jan., 1909. Cases Treated in Hospital, Compulsorily Notifiable 1st May, 1911.  
All cases of Pulmonary Tuberculosis notifiable 1st January, 1912. All forms of Tuberculosis notifiable 1st February, 1913.

In the above Table deaths of Non-residents occurring at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Norwood Cottage Hospital, Purley Cottage Hospital, and 99, Central Hill (Servants Reformatory), are excluded. Prior to 1903 correction was only made for the first three institutions.

Vital Statistics of separate Wards in 1913 and previous years.

NAMES OF LOCALITIES.	1. NORTH WARD.				2. WEST WARD.				3. CENTRAL WARD.				4. EAST WARD.				5. SOUTH WARD.				6. SOUTH NORWOOD WARD.				7. UPPER NORWOOD SUB-DIVISION.				8. THORNTON HEATH SUB-DIVISION.				9. UNDISTRIBUTED. Institution Births and Deaths.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	* Prior to 1900, Institution Deaths could not be distributed as the Registrar did not supply the necessary information.							
1903	..	..	..	..	45,540	1355	570	169	16,957	379	210	45	15,836	339	156	34	18,735	378	181	27	21,412	611	260	55	8,302	149	85	7	14,375	443	171	48	72	37	1	
1904	..	..	..	..	46,741	1319	699	190	17,051	362	229	35	16,346	375	193	47	19,107	399	227	55	21,925	621	322	70	8,327	148	90	20	14,922	463	192	63	82	46	3	
1905	..	..	..	..	47,944	1446	706	162	17,106	344	236	37	16,983	387	161	30	19,404	384	197	34	22,370	648	297	60	8,335	134	105	10	15,562	466	159	39	85	21	..	
1906*	..	..	..	..	49,219	1451	744	207	17,171	362	255	51	17,530	393	182	51	19,711	366	232	40	22,825	630	276	61	8,343	148	88	7	16,212	447	227	65	89	15	3	
1907*	..	..	..	..	50,500	1515	715	171	17,236	351	207	38	18,083	392	172	25	20,022	363	210	29	23,284	643	285	55	8,351	145	94	9	16,866	456	195	44	102	23	..	
1908*	..	..	..	..	51,801	1550	747	185	17,310	340	209	24	18,634	388	190	30	20,329	361	237	36	23,739	647	267	61	8,364	156	119	6	17,521	492	231	53	83	21	3	
1909*	..	..	..	..	53,125	1560	721	142	17,394	266	211	24	19,185	396	189	33	20,636	371	198	27	24,195	654	267	39	8,377	151	87	8	18,176	455	184	40	85	23	..	
1910*	..	..	..	..	54,458	1489	693	149	17,478	298	179	21	19,736	404	195	33	20,943	376	180	30	24,651	548	239	45	8,388	139	102	6	18,831	474	168	47	82	27	2	
1911	29,701	691	275	54	33,592	800	473	107	16,167	295	199	32	20,175	377	217	42	18,998	360	209	42	25,609	572	325	65	8,128	112	105	10	18,081	430	190	43	111	29	2	
1912	30,450	683	273	46	34,964	829	436	88	16,119	298	190	25	20,743	417	199	27	19,111	370	203	24	26,228	577	281	39	8,115	131	103	14	18,527	416	174	35	140	34	...	
Averages of Years 1903 to 1912.	..	..	..	..	..	..	..	..	16,998	329	212	33	18,325	386	185	35	19,699	372	207	34	23,623	615	281	55	8,303	141	97	9	16,907	454	189	47	93	27	1	
Averages of Years 1911 & 1912	30,075	687	274	50	34,278	814	454	97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Averages of Years 1903 to 1910 inclusive.	..	..	..	..	49,916	1461	699	172	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
1913	31,117	781	349	69	36,494	800	451	90	16,070	332	215	36	21,323	402	226	37	19,226	387	234	37	26,850	594	319	54	8,102	112	98	8	18,982	425	182	37	107	21	..	

NOTES.—Deaths of residents occurring beyond the district are included in sub-columns c of this table, and those of non-residents occurring at the Workhouse, Workhouse Infirmary, Borough Hospital, General Hospital, Norwood Cottage Hospital, Purley Cottage Hospital, and 99, Central Hill (Servants' Reformatory) are excluded.

Deaths of residents occurring in Public Institutions are allotted to the respective localities, according to the addresses of the deceased, and all deaths of Croydon residents whose exact home could not be ascertained, are included in Block 8.

\* Including North Ward.



## B.—SANITARY WORK OF THE YEAR.

### GENERAL SANITARY WORK.

The usual summary is given in Table IX., which gives a fair idea of the various matters engaging the attention of the Sanitary Inspectors.

During the year 5,239 house-to-house inspections were made, as compared with 4,306 in 1912.

With very few exceptions, the houses from which infectious diseases were notified, including tuberculosis, were thoroughly inspected and the drains examined. During the year 986 such houses were examined.

The number of systems of combined drainage dealt with as single *private* drains during the year was 11. This work was carried out under the provisions of the Croydon Corporation Act, 1905. The cost of carrying out the necessary works amounted to £151 13s. 2d., and was borne by the owners instead of by the inhabitants at large.

In 191 instances the whole of the house drains were re-laid, and 207 house drains were repaired or partially re-laid.

160 written applications were received for the examination of the drains and sanitary condition of houses by occupiers or intending occupiers. In all these cases special reports were made by the district Inspectors, copies of which were forwarded to the applicants; where defects were found, and in many cases where improvements were suggested, the work was carried out by the owners without the necessity of serving sanitary notices.

Most of the nuisances discovered were remedied on receipt of informal notices, but in 294 cases, Council Orders had to be applied for. Of these, 294 notices, and the 122 which were outstanding at the end of 1912, 284 were complied with, leaving 132 outstanding at the end of the year.

No prosecutions had to be undertaken for non-compliance with ordinary nuisance notices.

### PAVING OF BACK YARDS.

457 back yards have been paved during the year.



## MUNICIPAL COMMON LODGING HOUSE.

This Lodging House affords accommodation for 17 women and 84 men. The number of occupants during the year amounted to 29,617 men and 3,286 women, making a total of 32,903. The average number of lodgers amounted to 81 men and 9 women per night.

The receipts and expenditure (exclusive of sinking fund and interest) for the past six years were :—

		Receipts.					Expenditure.		
		£	s.	d.			£	s.	d.
1908	...	753	0	9	...		624	7	5
1909	...	750	0	0	...		632	15	7
1910	...	765	13	2	...		670	16	11
1911	...	802	12	7	...		610	7	11
1912	...	764	1	7	...		662	3	9
1913	...	765	6	7	...		623	14	4

## OTHER COMMON LODGING HOUSES.

There are ten other houses on the register.

The following Table gives the situation of the ten registered houses and the accommodation provided therein :—

Premises.	No. of Rooms.	Accommodation.
11 & 12, Princess Road ... ..	12	54 men and 8 married couples.
9, Prospect Place ... ..	6	14 men and 5 married couples.
19, 20, 21, 22, 23 & 24, Lahore Road ... ..	30	50 men, 10 women, and 6 married couples.
52, Union Street ... ..	13	30 men.

Nos. 19 to 24, Lahore Road.—These houses are under one management and worked as one establishment, as also are Nos. 11 and 12, Princess Road. Practically, therefore, only four common lodging houses now remain in the Borough, with a total accommodation of 196 adults, or if we add the Municipal Common Lodging House, a total of five houses with 295 single beds and 19 double beds.

During the year common lodging houses received 508 visits, while 10 houses received night visits.

Minor infringements of bye-laws were detected on 26 occasions, but in no case were they sufficiently serious for legal proceedings to be taken.

Structural alterations for improving the means of escape in case of fire were asked for in three cases. The work is now completed.

### HOUSES LET IN LODGINGS.

There are now 55 houses registered under the bye-laws. During the year these houses received 631 visits. On no occasion were offences discovered for which prosecutions were necessary.

At the present moment the following houses are registered as houses let in lodgings:—

					Houses.
Wilford Road...	...	...	...	...	21
Forster Road ...	...	...	...	...	12
Holmesdale Road	...	...	...	...	4
Ely Road ...	...	...	...	...	12
Queen's Road...	...	...	...	...	2
Lion Road ...	...	...	...	...	1
Pawsons Road	...	...	...	...	3
					<hr/> 55

The results of registration and inspection have, on the whole been satisfactory.

### HOUSING, TOWN PLANNING, ETC., ACT, 1909.

The following table gives the general housing particulars in respect of each district as estimated in the year 1911:—

#### HOUSE-TO-HOUSE INSPECTION.

##### SUMMARY.

Inspector.	No. of Streets.	Total No. of Houses.	No. of Houses 10/- per week and under.
Culver ...	91	3313	1429
Earwicker ...	125	5953	3025
Peck... ..	129	5195	2224
Richardson...	120	5516	2620
Vincent ...	130	7739	2746
Flint ...	92	5293	2872
Hunt ...	135	4977	2235
Totals ...	822	37986	17151

It is seen from this Table that the number of houses coming within the meaning of the Housing Act Regulations was estimated at 17,151, and as an average of 5,250 house-to-house inspections had been made during the previous five years, it is clear that all cottage property would on the average be inspected about once in three years. This has always been the course adopted in Croydon, and in many instances whole streets are inspected at least twice a year.

The following are the particulars of inspections made in 1913.  
HOUSE-TO-HOUSE Inspections made by the Sanitary Inspectors during the year ended 31st December, 1913.

Inspector.		House-to-House Inspection.	Informal Notices served.	Informal Notices complied with.
Culver ...	...	1173	578	529
Earwicker	...	557	285	274
Peck ...	...	663	471	402
Richardson	...	829	493	479
Vincent	...	702	361	315
Flint ...	...	661	568	498
Hunt ...	...	654	388	324
Total for the Year		5239	3144	2821

The numbers in this Table are in addition to 986 inspections of houses where infectious diseases had been notified, and 160 inspections on request of larger houses where the drains were tested and special reports sent to occupiers, prospective occupiers, or owners. As a result of these inspections, 3,144 preliminary notices were served during the year, of which 2,821 were complied with.

No prosecutions were found to be necessary for the non-compliance with these orders.

Full details of the general sanitary work are given in the Summary in Table IX.

Seventy-eight cases of overcrowding were discovered, mostly in the poorer neighbourhoods; notices were in all cases served on the tenants and also on the landlords. In the majority of cases the overcrowding appeared to be of a temporary character, neighbours or friends having taken in another family, who were themselves in difficulties.

Forty-four houses were found to be in a condition unfit for human habitation.

Two Closing Orders were made, and proceedings initiated in respect to the other 42 houses. In 9 cases the owners closed the houses after negotiations. In other 7 cases the houses were demolished, also after negotiations. In 12 cases the houses were made fit for human habitation, and at the close of the year the remaining 14 houses were under consideration.

The commonest defects were dampness, insufficient light and ventilation, and general decay.



## HOUSE-TO-HOUSE INSPECTIONS, 1913.

Number of Living Rooms and Rent per House.

No. of Rooms.	RENT PER WEEK.								Total.
	3/- and 3/6.	4/- and 4/6.	5/- and 5/6.	6/- and 6/6.	7/- and 7/6.	8/- and 8/6.	9/- and 9/6.	10/-	
2	4	21	11	3	1	1	—	—	41
3	1	22	83	40	24	6	—	—	176
4	—	52	143	189	126	15	4	2	531
5	—	2	50	303	664	331	98	41	1489
6	—	1	24	70	559	566	363	199	1782
7	—	—	4	1	28	87	59	82	261
8	—	—	—	—	1	6	—	4	11
9	—	—	—	—	—	—	—	2	2
	5	98	315	606	1403	1012	524	330	4293

## TENEMENTS.

No. of Rooms.	2/- & 2/6.	3/- & 3/6.	4/- & 4/6.	5/- & 5/6.	6/- & 6/6.	7/- & 7/6.	8/- & 8/6.	Total.
1	25	1	—	—	—	—	—	26
2	50	92	16	—	—	—	—	158
3	3	173	117	117	4	—	—	414
4	—	6	27	21	8	—	—	62
5	—	—	—	2	3	—	—	5
	78	272	160	140	15	—	—	665

## FACTORIES AND WORKSHOPS.

### FACTORY AND WORKSHOP ACT.

Section 132 of the Factory and Workshop Act, 1901, provides :—

“The Medical Officer of Health of every District Council, shall, in his Annual Report to them, report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State.”

The following is a summary of the work done under this Act in Croydon during 1913.

#### FACTORIES.

For the most part, the law relating to Factories is administered by the Home Office. 201 visits were, however, made to Factories, 91 being in reference to sanitary accommodation, 40 in reference to cleanliness of earth closets, 17 in reference to new occupation, 2 in reference to alleged smoke nuisance, 9 in reference to extra sanitary accommodation for females at a printing office; 5 in reference to extra sanitary accommodation in a brewery; in reference to intervening ventilated space at two printing premises 13, an optician's premises 5, a bedding factory 1, engineering works 13; and 5 in reference to screening of women's sanitary accommodation at a laundry.

#### WORKSHOPS.

The number of workshops on the register and the various trades carried on therein, the number of workpeople employed, and the number of visits paid by the Inspector are shown in Table X.

The following is a list of the various matters which required attention :—

	Factories.	Workshops	Laundries	Bake-houses.	Work-places.	Out-workers.	TOTAL
Screening of Women's W.C's. .. ..	4	—	1	—	—	—	5
Cleansing, etc. .. ..	—	13	2	14	9	1	39
Insufficient W.C. accommodation .. ..	2	2	—	—	—	—	4
Defective ditto .. ..	14	18	1	8	—	—	41
Overcrowding .. ..	—	2	—	—	—	—	2
Dustbins .. ..	—	—	—	1	—	1	2
Paving .. ..	—	—	2	1	1	—	4
Want of ventilation of stores .. ..	—	25	—	—	—	—	25
Want of intervening ventilated space .. ..	4	—	—	—	—	—	4
	24	60	6	24	10	2	126

Preliminary Notices served—

Factories	...	...	...	...	...	...	...	12
Workshops	...	...	...	...	...	...	...	16
Laundries	...	...	...	...	...	...	...	5
Bakehouses	...	...	...	...	...	...	...	14
Workplaces	...	...	...	...	...	...	...	10
Outworkers	...	...	...	...	...	...	...	2

59

These 59 notices were duly complied with : the remainder of the matters requiring attention were satisfactorily dealt with by verbal notice.

Sixty communications were sent to H.M. Inspector of Factories in accordance with the various requirements of the Act.

### HOMEWORK.

163 lists were received from employers, containing the name of 384 outworkers residing in the Borough. 120 further names were received from the Medical Officers of Health of various neighbouring districts, and the names of 51 outworkers residing outside the Borough were similarly despatched to the Medical Officer of Health for the district concerned.

236 visits were paid to outworkers.



### BAKEHOUSES.

At the end of the year there were 109 Bakehouses in occupation, of which eight were underground. 759 visits were made by the Inspector during the year, and 42 nuisances discovered and abated.

### WORKPLACES.

At the end of the year there were 74 workplaces on the register. 162 visits to eating-house kitchens have been made, and 10 notices served for cleansing and other defects, which have been complied with.

### SMOKE NUISANCES.

Sixty-two observations were made, and 10 persons were cautioned.

### MEAT INSPECTION.

There is one inspector appointed for meat inspection in the Borough, acting under the direction and supervision of the Medical Officer of Health. The Inspector is assisted so far as the Municipal Slaughter Houses are concerned by the Superintendent.

The inspector holds the certificate of the Sanitary Association of Scotland. The superintendent of the Municipal Slaughter Houses holds the Meat Inspection Certificate of the Royal Sanitary Institute.

All cases of difficulty arising from doubt or difference of opinion are decided by the Medical Officer of Health.

The Meat Inspector visits the private slaughter houses as far as possible when slaughtering operations are in progress, and at other times, to ascertain whether the Bye-Laws as to removal of offal and general cleanliness are complied with.

The following tabulated statements show the number of inspections made during the year, number of animals slaughtered in the Municipal Slaughter Houses, the total amount of meat and other articles of food destroyed, the reasons for which whole carcasses and all organs were destroyed, the number of animals in which Tuberculosis was detected, and the action taken with regard to same. There are fifteen registered Slaughter Houses in the Borough in addition to the Municipal Slaughter Houses at Pitlake. One of the registered Slaughter Houses was transferred to a new occupier during the year,

Five notices were served on the owners or occupiers of private slaughter houses during the year, relative to matters requiring attention under the Public Health Acts or the Slaughter House Bye-Laws, chiefly repairs to buildings or adjoining yards, all of which had been complied with at the end of the year.

*Summary of inspections as reported to Committee during the year :*

## I.

Date. 1913.	Slaughterhouses.	Butchers.	Fishmongers.	Markets.	Cowkeepers.	Dairies.	Other Premises.	Total.
January 25th ...	153	68	13	8	6	20	1	269
February 15th ...	111	58	11	6	4	22	2	214
March 29th ...	172	60	17	10	8	34	—	301
April 19th ...	114	48	12	6	3	24	2	209
May 17th ...	143	55	15	8	12	33	3	269
June 14th ...	122	48	17	8	16	36	3	250
July 12th ...	139	44	19	8	20	42	2	274
August 23rd ...	175	55	29	12	16	38	—	325
October 4th ...	119	46	11	6	5	28	1	216
November 8th ...	202	72	22	10	5	53	1	365
„ 29th ...	112	58	24	6	7	34	2	243
December 31st ...	188	89	27	10	4	45	—	363
	1750	701	217	98	106	409	17	3298

The following is the approximate number of animals slaughtered at the Public Slaughter Houses, Pitlake, and a summary for the last five years :—

## II.

Slaughterhouses.	Beasts.	Sheep.	Pigs.	Calves.	Total.
Private ...	261	3642	15008	2928	21839
Public ...	197	1221	274	75	1767
Totals ...	458	4863	15282	3003	23606

*Summary for last five years :—*

## III.

Year.	Beasts,	Sheep.	Pigs.	Calves.	Total.
1909	579	7256	20106	2480	30421
1910	743	10541	16854	2990	31128
1911	635	9724	19371	3961	33691
1912	727	7874	19765	4017	32383
1913	458	4863	15282	3003	23606
Total ...	3142	40258	91378	16451	151229



*Summary of Meat and other articles destroyed as unfit for food  
during the year :—*

## IV.

ARTICLES.	Weight in lbs.			Remarks.
	Diseased.	Unsound.	Total.	
Beef ... ..	8,207	6,824	15,031	Including 20 carcasses.
Mutton ... ..	382	491	873	„ 17 „
Pork ... ..	8,540	—	8,540	„ 32 „
Veal ... ..	350	322	678	„ 16 „
Offal ... ..	4,273	890	5,163	
Fish ... ..	...	3,234	3,234	Haddocks, Herrings, Whiting, Hake, Plaice, Mackerel, Kippers and Whelks.
Other Articles ...	...	296	296	Tomatoes and Dates.
Total lbs. ...	21,758	12,057	33,815	Including 85 carcasses.

Statement as to reasons for destruction of whole carcasses and  
all internal organs :—

## V.

Class of Animal.	Tuberculosis.	Peritonitis.	Pneumonia.	Metritis.	Enteritis.	Jaundice.	Diarrhoea.	Nephritis.	Pyæmia.	Parturient fever.	Emaciated, various causes.	Immature.	Injured, etc.	Unsound,	Total carcasses.	Total Weight of carcasses in lbs.
Cattle ..	8	1	1	1	3	..	..	1	...	1	1	..	1	2	20	8770
Sheep ..	..	..	2	..	..	..	..	..	4	..	8	..	2	1	17	666
Pigs ..	20	..	..	..	5	4	..	..	..	1	..	..	..	2	32	3735
Calves ..	..	..	..	..	..	2	6	..	..	..	..	5	3	..	16	630
Totals	28	1	3	1	8	6	6	1	4	2	9	5	6	5	85	13801

*Summary of Tuberculous Carcases found and how these were dealt with :—*

## VI.

Animals affected.	Carcase and all internal organs destroyed,	Part of carcase and all organs destroyed.	All or part of organs destroyed.	Total.
Cattle ... ..	8	1	13	22
Pigs ... ..	20	182	13	215
Total ... ..	28	183	26	237

**DAIRIES AND COWSHEDS.**

There were 24 cowsheds on the register at the end of the year, of which 22 were in occupation, as against 23 registered sheds and 22 in occupation at the end of 1912.

The cowsheds at present on the register provide accommodation for 391 cows, allowing 800 cubic feet of air space per head. The number of cows in the registered sheds at the end of the year was 327.

The number of Cowkeepers in the Borough is now 15, the same as last year.

One additional shed was registered during the year, providing accommodation for 12 cows, the occupier being already on the register in respect of another shed.

During the year 18 dairymen and milk purveyors have been removed from the register on account of the business being discontinued or transferred, and 30 dairymen and milk purveyors (mostly purveyors) have been added, leaving 291 on the register at the end of the year.

Thirty-five notices were served on dairymen and cowkeepers during the year for various matters under the provisions of the Dairies', Cowsheds' and Milkshops' Order, and the regulations made thereunder by the local Authority, all of which were complied with at the end of the year.

## FOOD AND DRUGS ACTS.

TABLE XI. gives the number of samples taken by the Inspector under the Acts during the year, the results of the analyses and the action taken thereon.

### PROSECUTIONS, 1913.

Date of Purchase.	Defendant.	Charge.	Result.	Penalty.	Costs.
1913				£ s. d.	£ s. d.
Jan. 18	W. M. H....	Selling Butter adulterated with 90 per cent. foreign fat ... ..	Convicted	2 0 0	1 3 0
June 20	A. W. ...	Selling Butter adulterated with 85 per cent. foreign fat ... ..	„	1 0 0	1 3 0
Dec. 8	A. E. P. ...	Selling Butter adulterated with 90 per cent. foreign fat ... ..	„	1 0 0	1 1 0
„ 12	A. B. ...	Selling Butter adulterated with 75 per cent. of foreign fat ... ..	„	25 0 0	5 7 4
Total ...				29 0 0	8 14 4

In 24 cases the samples of milk (21 new and 3 skimmed or separated) were slightly below the standard suggested by the Board of Agriculture. Being first offences the vendors were written to calling their attention to the fact, and asking for some explanation; further samples being subsequently taken.

Of these 24 samples, 20 contained added water to the extent of an average of 2.34 per cent., 3 contained added water to the extent of an average of 5 per cent., also being deficient of fat to the extent of an average of 4.66 per cent.; and one was deficient of fat to the extent of 5 per cent.

During the year 15 samples of Cream were submitted for analysis, 2 of which proved to be not genuine. Further particulars of these samples are given under the Milk and Cream Regulations (see page 83).

One hundred and nineteen test, or informal, samples of butter were taken during the year, of which 4 proved to be not genuine. In 3 cases subsequent official samples were taken, of which 2 proved genuine and 1 adulterated.



Six test samples of Jam (two Strawberry, two Black Currant, and two Raspberry) were taken during the year, 4 of which were proved to contain Dextrine to the extent of an average of 1.61 per cent.

During the year 73 samples of other articles were taken, which all proved to be genuine.

The test samples were purchased by women in small quantities with other articles, generally during the busy periods in the evening.

### MILK AND CREAM REGULATIONS, 1912.

The following is a copy of the Report sent to the Local Government Board under the above-mentioned Regulations, viz. :

#### REPORT OF ADMINISTRATION IN CONNECTION WITH THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

REPORT FOR THE YEAR ENDED 31ST DECEMBER, 1913.

##### 1. *Milk; and Cream not sold as Preserved Cream.*

	(a) Number of samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present.
MILK	274	Nil.
CREAM	8	1. 0.24% Boric acid. Vendor warned. Subsequent sample labelled as required under Regulations.

##### 2. *Cream sold as Preserved Cream.*

- (a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made	...	...	6
(ii) Statements incorrect	...	...	1
		Total	<u>7</u>

- (b) Determinations made of milk fat in cream sold as preserved cream.

(i) Above 35 per cent.	...	...	7
(ii) Below 35 per cent.	...	...	0
		Total	<u>7</u>

- (c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Art. v. (1) and the proviso in Art. v. (2) of the Regulations have not been observed.

Nil.

- (d) Particulars of each case in which the Regulations have not been complied with, and action taken.

0·67 per cent. Boric acid contained in sample. The sample was labelled as containing 0·5 per cent. Boric acid. Vendor warned and subsequent sample proved in accordance with the label.

3. *Thickening substances.* Any evidence of their addition to cream or to preserved cream. Action taken where found.

Nil.

4. *Other observations, if any.*

Nil.

The following table has been prepared from the certificates of the Borough Analyst (Mr. Lester Reed):—

Total number of samples of milk collected and percentage below standard, and percentage of fat of *Genuine* Samples.

TABLE VII.

1913

	No. of Samples.	No. below Standard.	Percentage of Samples below Standard.	Average percentage of fat of Genuine Samples.
Taken in course of delivery under contract. <b>Milk</b> ... ..	96	9	9·37	3·91
„ <b>Skimmed or Separated Milk</b>	2	—	—	·38
Taken on Milkmen's rounds. Sunday mornings. <b>Milk</b> ... ..	69	5	7·24	3·70
„ <b>Skimmed or Separated Milk</b>	8	1	12·50	1·57
Taken on Milkmen's rounds. Week days. <b>Milk</b> ... ..	88	7	7·95	3·84
„ <b>Skimmed or Separated Milk</b>	9	2	22·22	1·10
Taken on Premises. <b>Milk</b> ...	2	—	—	4·25
<b>Milk</b> ... ..	255	21	8·23	3·83
<b>Skimmed or Separated Milk</b> ...	19	3	15·78	1·21



TABLE VIII.

**\*HEALTH VISITORS.**—The following is a summary of the work done and visits paid by the six Health Visitors.

Visits to Houses where the following Diseases have been reported.	Miss Pirie.		Miss Waterman.		Miss King.		Miss Chalk.		Miss Williams.		Miss Gaul.		TOTALS			
	School Cases.		Other Cases.		School Cases.		Other Cases.		School Cases.		Other Cases.		School Cases.		Other Cases.	
	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.	1st Visits.	Subsequent Visits.
Measles ... ..					286	20	...	...	410	9	...	...	310	...	...	...
German Measles ... ..					6	1	...	...	5	...	...	...	8	...	...	...
Mumps ... ..					46	1	...	...	138	2	...	...	108	6	...	...
Whooping Cough ... ..					111	14	...	...	110	4	...	...	153	20	...	...
Chicken pox ... ..					121	6	...	...	316	10	...	...	199	9	...	...
Sore Throat ... ..					163	92	34	44	254	79	34	19	175	16	36	19
Ringworm ... ..					48	106	...	...	53	47	...	...	70	54	2	1
Verminous Heads ... ..					...	...	...	...	...	...	1	...	...	...	...	...
Verminous Bodies ... ..					...	...	...	...	...	...	1	...	...	...	...	...
Impetigo ... ..					169	336	...	...	205	266	...	...	164	224	...	...
Scabies ... ..					1	5	...	...	23	37	...	...	11	29	...	...
Other diseases ... ..					550	612	...	1	331	88	18	6	430	98	...	...
TOTALS ... ..					1501	1193	34	45	1845	542	54	25	1628	456	39	20
	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.	1st Visits.	Subsequ't Visits.
Visits to houses where Infants have been born...	...	...	644	708	350	407	296	288	431	790	930	712	2651	2903		
Visits to houses where Infants have died under one year of age ... ..	...	...	51	2	31	...	47	13	33	...	34	4	196	19		
Addresses given re Infant feeding, etc. ... ..	...	...	...	...	...	...	...	...	18	...	...	...	21	...		
Tuberculosis cases visited...	259	441	36	31	56	38	67	38	39	85	2	19	485	652		
Visits paid to Elementary Schools for Medical Inspections ... ..	...	...	48	...	32	...	29	...	29	...	37	...	175	...		
Other Visits to Elementary Schools ... ..	...	...	51	...	2	...	31	...	17	...	15	...	116	...		
Number of Children prepared for Medical Inspection—Newly Inspected ... ..	...	...	590	...	910	...	759	...	729	...	897	...	3385	...		
Re-inspected ... ..	...	...	30	...	45	...	58	...	46	...	116	...	295	...		
Specially Inspected... ..	...	...	43	...	87	...	29	...	23	...	37	...	219	...		
Home Visits arising out of Medical Inspection ... ..	...	...	167	197	47	40	68	74	190	...	226	140	698	451		
Home Visits for other information ... ..	...	...	42	...	28	12	125	11	42	...	27	1	244	24		
Cultures taken ... ..	...	...	227	...	150	13	388	...	236	...	224	6	1225	19		

\* This Table does not include the midwives inspections for which see page 42.





**RAG FLOCK ACT, 1912.**

Six inspections of premises occupied by Upholsterers and Bedding Manufacturers were made under the Act during the year.

**THE WORK OF THE HEALTH VISITORS.**

This is set out in detail in Table VIII, and again shows a large mass of useful work, conscientiously and efficiently performed.

**HEALTH LECTURES.**

Health lectures were given at various schools during the year to the parents of scholars by the Health Visitors, and at meetings of various societies in the borough.

TABLE IX.

Work done by the Sanitary Inspectors during the Year ending  
27th December 1913.

NATURE OF CASES DEALT WITH	Deputy C Insp. Culver.	Insp. Earwicker	Insp. Peck.	Insp. Richardson	Insp. Bull.	Insp. Fulker.	Insp. Vincent.	Insp. Flint.	Insp. Hunt.	TOTAL
House to House Inspection .. .. .	1173	557	663	829	..	..	702	661	654	5239
No. of Houses inspected where zymotic diseases have occurred .. .. .	92	188	136	152	..	1	200	131	86	986
No. of Visits of enquiry re infectious diseases	28	118	179	178	..	388	94	60	42	1087
House drains tested with smoke (primary) ..	107	319	395	648	..	..	358	264	280	2371
"    "    "    on application ..	32	45	18	9	..	..	6	12	38	160
Drains found defective .. .. .	69	39	33	39	..	..	46	49	43	318
House drains re-laid .. .. .	39	8	25	9	..	..	51	35	24	191
"    "    repaired .. .. .	13	59	21	57	..	..	15	25	17	207
No. of smoke tests during repair .. .. .	74	210	181	201	..	..	138	149	128	1081
"    water .. .. .	148	287	121	66	..	..	99	72	127	920
Damp-proof courses inserted .. .. .	..	..	3	2	..	..	2	13	3	23
Yards paved .. .. .	..	..	2	28	..	..	23	27	9	89
Inspection of Premises where offensive trades are conducted .. .. .	1	..	..	..	..	..	..	..	..	1
Inspections of Factories and Workshops ..	..	..	..	..	1661	..	..	..	..	1661
"    "    Greengrocers, Fishmongers & Ice Cream Shops .. .. .	148	313	327	181	..	..	584	101	191	1845
"    "    Schools .. .. .	5	3	8	3	..	10	8	7	11	55
"    "    Shops .. .. .	35	16	160	113	312	..	128	180	159	1103
"    "    Bakehouses .. .. .	..	..	..	..	759	..	..	..	..	759
"    "    Yards and Stables .. .. .	309	558	609	482	..	..	605	592	645	3800
"    "    Common Lodging Houses ..	..	..	..	..	508	..	..	..	..	508
"    "    "    "    night visits ..	..	..	..	..	10	..	..	..	..	10
"    "    Houses let in Lodgings ..	..	..	..	14	..	..	188	429	..	631
"    "    "    "    night visits ..	..	..	..	..	..	..	..	..	..	..
"    "    Urinals .. .. .	484	133	542	453	..	..	537	71	510	2730
Smoke observations .. .. .	1	..	..	..	62	..	..	..	1	64
Re-inspections of work in progress .. ..	858	1624	1304	1415	..	..	2029	1166	1440	9836
Sundry inspections .. .. .	342	556	428	410	288	119	271	145	322	2881
Complaints from public investigated ..	176	91	69	89	..	..	182	65	45	717
NUISANCES DISCOVERED.										
Houses requiring Cleansing & Whitewashing	271	108	118	144	33	..	78	176	175	1103
"    Overcrowded .. .. .	17	8	5	16	2	..	6	16	8	78
Leaky Roofs .. .. .	56	61	35	35	2	..	21	50	73	333
Dampness in Houses .. .. .	69	109	52	50	..	..	106	56	68	510
Drains found stopped .. .. .	51	109	70	77	2	2	104	45	57	517
Drains and Sanitary Fittings found defective	222	166	265	268	58	..	172	185	167	1503
"    Yard Surfaces .. .. .	63	109	70	42	3	..	65	43	62	457
"    Eaves and Downspouts .. .. .	130	72	27	77	..	..	32	47	51	436
"    Manure Receptacles .. .. .	4	1	..	1	..	..	2	4	..	12
"    Urinals .. .. .	1	2	8	1	..	..	6	1	..	19
"    Ashbins .. .. .	134	92	146	160	2	..	82	97	149	862
Smoke Nuisances .. .. .	1	..	..	..	1	..	..	..	..	2
Animals improperly kept .. .. .	4	7	4	4	4	..	..	5	3	31
Infringements of Bye-laws and Regulations	5	4	46	7	54	..	..	28	22	166
Offensive Accumulations .. .. .	24	7	4	14	..	..	7	7	..	63
Sundry other Nuisances .. .. .	2	8	114	159	84	1	2	..	127	497
Total number of Nuisances .. .. .	1054	863	964	1055	245	3	683	760	962	6589
Informal Notices served .. .. .	578	285	471	493	57	..	361	568	388	3201
"    "    complied with .. .. .	529	274	402	479	54	..	315	498	324	2875
"    "    in abeyance .. .. .	93	100	72	50	14	..	28	80	99	536
Referred to Committee .. .. .	44	11	64	20	..	..	53	48	54	294
Council orders in abeyance (1912) ..	24	6	17	5	..	..	38	21	11	122
"    "    complied with .. .. .	68	17	81	25	..	..	91	69	65	416
"    "    complied with .. .. .	36	16	54	18	..	..	70	57	33	284
Council orders in abeyance .. .. .	32	1	27	7	..	..	21	12	32	132



TABLE X.

Workshops on Register, number of Employees, and visits paid during the year.

TRADE	No. of Workshops.	No. of Employees.	No. of Visits.
Aeroplane maker .. ..	1	2	1
Banana Works .. ..	2	6	5
Baking Powder Manufacturers ..	1	2	3
Blind Makers .. ..	3	4	4
Blacksmiths .. ..	9	14	17
Bottlewashers .. ..	1	2	3
Bootmakers .. ..	24	34	52
Brushmaker .. ..	1	1	2
Builders .. ..	8	14	6
Cabinet Makers and Upholsterers	34	116	65
Cigarette Maker .. ..	1	2	2
Carriage Builders .. ..	12	38	47
Chemists .. ..	1	4	2
Confectioners .. ..	6	12	8
Cycle Works .. ..	26	88	48
Carpenters and Joiners .. ..	6	10	7
Dentists .. ..	6	11	10
Dressmakers and Milliners ..	222	1200	349
Electricians & Engineers .. ..	8	20	5
Film maker .. ..	1	20	2
Florists .. ..	2	2	2
Glass Works .. ..	3	30	1
Gluemaker .. ..	1	3	4
Greenhouse & Ladder Makers ..	7	12	12
Ironmongers .. ..	6	27	6
Laundries .. ..	64	322	96
Modellers .. ..	2	2	5
Naturalist .. ..	1	2	2
Pharmacy Works .. ..	2	22	4
Photographers .. ..	8	20	12
Piano Maker .. ..	1	4	3
Picture Frame Makers .. ..	6	14	7
Rubber Works .. ..	1	4	1
Rag Pickers .. ..	4	7	16
Saddlers .. ..	10	20	8
Scenic Artists .. ..	2	2	2
Sign Writers .. ..	6	23	6
Stonemasons .. ..	10	33	8
Scale Makers .. ..	2	4	4
Tailors .. ..	90	300	194
Tennis Bat Maker .. ..	1	3	2
Turners .. ..	1	2	2
Umbrella Makers .. ..	3	10	7
Varnish Works .. ..	1	2	6
Watchmakers .. ..	8	12	9
Wig Makers .. ..	2	4	2
Xmas Card Makers .. ..	1	8	2
Totals .. ..	618	2494	1062

TABLE XI.

## FOOD AND DRUGS ACTS

Total Number of Samples taken during the year 1913.

Sample of	Total Samples.	Genuine.	Not Genuine.	Prosecu- tions.	Convic- tions.	Cautions.
Milk ... ..	255	234	21	—	—	16
„ Skimmed or separated	19	16	3	—	—	3
Butter ... ..	167	159	8	4	4	—
Margarine ... ..	1	1	—	—	—	—
Cream ... ..	15	13	2	—	—	1
Lard ... ..	20	20	—	—	—	—
Lactic Cheese ... ..	1	1	—	—	—	—
Beef Dripping ... ..	14	14	—	—	—	—
Coffee ... ..	10	10	—	—	—	—
Jam (Strawberry) ...	2	1	1	—	—	—
Jam (Black Currant) ...	2	1	1	—	—	—
Jam (Raspberry) ...	2	—	2	—	—	—
Malt Vinegar ... ..	1	1	—	—	—	—
Orange and Quinine Wine	3	3	—	—	—	—
Tartaric Acid ... ..	3	3	—	—	—	—
Cream of Tartar ...	3	3	—	—	—	—
Citric Acid ... ..	3	3	—	—	—	—
Gregory Powder ...	5	5	—	—	—	—
Tincture of Balsam of Tolu ... ..	5	5	—	—	—	—
Paregoric ... ..	4	4	—	—	—	—
Totals ...	535	497	38	4	4	20

TABLE XII.

## FOOD AND DRUGS ACTS.

Particulars of Samples taken during the fourteen years 1900-1913 inclusive —

Year.	Number of Samples taken.	Number Genuine.	*Number Adulterated.	Percentage of Adulterated.	Prosecutions.	Total amount of Fines and Costs imposed.
						£ s. d.
1900	246	230	16	6·5	5	7 5 0
1901	299	274	25	8·3	3	6 6 0
1902	291	261	30	10·4	9	23 1 0
1903	294	268	26	8·8	4	5 16 0
1904	354	317	37	10·5	6	30 15 0
1905	356	320	36	10·0	8	36 13 6
1906	400	351	49	12·3	6	15 12 0
1907	448	413	35	7·8	13	86 8 0
1908	438	384	54	12·0	19	40 12 6
1909	455	424	31	6·8	7	55 13 0
1910	480	431	49	10·2	13	33 3 0
1911	501	436	65	12·9	6	18 8 6
1912	525	473	52	9·9	13	35 10 0
1913	535	497	38	7·1	4	37 14 4

\* The term adulterated includes samples found to be not up to standard.



TABLE XIII.

METEOROLOGICAL RECORD—YEAR 1913

Rain Gauge 5-in. in diameter, 1-ft. above ground, 146-ft. above sea level. Temperature taken in the shade of a Stevenson's Screen, 4-ft. from the ground. The Ground Thermometer is suspended in an iron tube, the bulb being 4-ft. *below* the level of the ground.

Months	Temperature of Air during the Month.				Mean Temperature of Air.	Difference from average 50 years at Greenwich.	Mean Temperature of Ground at 4-ft.	Mean Temperature of the Dew Point.	Mean Tensional Difference between Ground and Dew Point at 9 a.m. and 3 p.m.	Rainfall.		
	Highest.	Lowest.	Mean of							No. of Days on which Rain fell.	Amount collected in Inches.	Difference from average 90 years at Greenwich
			All Highest.	All Lowest.								
January ..	51°	27°	44°·9	36°·5	40°·7	+ 2°·2	44°·1	39°·3	·061	19	3·59	in. + ·78
February..	55°	28°	47°·2	36°·1	41°·6	+ 2°·1	43°·0	37°·9	·065	10	·84	— ·69
March ..	59°	28°	51°·6	34°·7	43°·1	+ 1°·4	43°·4	40°·9	·046	24	2·90	+ ·39
April ..	69°	27°	54°·8	40°·6	47°·7	+ 0°·5	45°·2	43°·9	·046	22	2·81	+ 1·21
May ..	84°	36°	67°·1	47°·1	57°·1	+ 4°·0	50°·0	51°·0	·059	10	1·22	— ·73
June ..	85°	45°	71°·0	50°·7	60°·8	+ 1°·4	55°·2	53°·6	·069	5	·20	— 1·76
July .	78°	43°	70°·0	52°·2	61°·1	— 1°·4	57°·0	54°·9	·059	14	1·93	— 52
August ..	80°	46°	71°·8	52°·5	62°·1	+ 0°·5	57°·6	55°·8	·061	11	2 02	— ·30
September	76°	43°	66°·7	52°·4	59°·5	+ 2°·3	57°·0	56°·6	·045	11	1·97	— ·27
October ..	66°	36°	59°·4	46°·4	52°·9	+ 2°·9	54°·2	51°·3	·078	17	4·38	+ 1·67
November	61°	28°	54°·0	41°·9	47°·9	+ 4°·7	50°·6	45°·9	·073	18	2·80	+ ·52
December	55°	28°	46°·2	37°·2	41°·7	+ 2°·0	47°·0	39°·2	·092	12	1·14	— ·82
Means and Totals for the Year.	85°	27°	58°·7	44°·0	51°·6	+ 2°·1	50°·4	47°·5	·063	173	25·80	+ 1·52

The Rainfall for the Year was 0·04 inches *below*, and the number of days on which rain fell 11 *above* the average of 46 years at Groydon.

GEO. CORDEN, F.R. Met. Soc.,  
Groydon.

TABLE XIV.

## CROYDON BOROUGH HOSPITAL.

Detailed Analysis of Expenditure under all Heads for the Year ending March 31st, 1913, and five preceding Years.

Year ending March.	Average No. of Patients.	Provisions.			Alcohol.			Surgery and Dispensary.			Domestic, including Coal and Gas.			Establishment and Miscellaneous Charges.				Salaries and Wages.																																				
		Total.	Average Cost per Bed occupied.			Total.	Average Cost per Bed occupied.			Total.	Average Cost per Bed occupied.			Establishment Charges and Repairs.	Miscellaneous Charges.	Total.	Average Cost per Bed occupied.	Medical Dispensing, Nursing & other.	Average Cost per Bed occupied.					Total Ordinary Expenditure.	Total Average Cost per Bed occupied.	Sinking Fund and Interest.	Total Average Cost per Bed occupied including Sinking Fund & Interest.																											
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.																										
1908	121	2588	1	7	21	7	9	5	16	0	0	11	393	16	3	3	5	4	1493	0	9	12	6	9	1074	16	9	197	9	9	1272	6	6	10	10	4	1997	17	1	16	10	3	7752	8	2	64	1	4	2272	3	1	82	16	11
1909	133	2586	11	8	19	9	0	13	5	10	2	0	501	10	8	3	15	4	1697	9	4	12	15	3	1260	10	11	128	18	10	1389	9	9	10	9	0	2361	9	5	17	15	1	8549	16	8	64	8	5	2101	10	9	80	1	8
1910	127	2523	3	7	19	17	6	6	7	4	1	0	430	13	11	3	7	9	1764	9	10	13	17	10	1363	17	10	460	9	4	1824	7	2	14	7	3	2220	4	3	17	9	7	8769	6	1	69	0	11	2101	10	9	85	11	11
1911	134	2696	1	8	20	2	5	3	8	9	0	6	487	19	3	3	12	10	1703	9	8	12	14	3	1179	17	10	387	16	5	1567	14	3	11	14	0	2364	7	10	17	12	11	8823	1	5	65	16	11	2206	10	9	82	6	3
1912	134	2886	19	10	21	10	11	10	17	0	1	7	618	10	10	4	12	4	2062	18	3	15	7	10	2250	5	2	385	9	1	2635	14	3	19	13	4	2527	15	4	18	17	4	10742	15	6	80	3	4	2721	17	3	100	9	7
1913	134	3047	0	5	22	14	10	10	19	10	1	7	729	8	10	5	8	10	2215	6	11	16	10	8	1959	0	10	467	17	1	2426	17	11	18	2	3	2726	0	4	20	6	10	11155	14	3	83	5	0	2774	12	0	103	19	1

During the year 1912-13 the sum of £1,716 17s. 11d. was received from other Local Authorities.







### C.—REPORT OF THE WORK OF THE BOROUGH HOSPITAL.

The total nominal accommodation at the Borough Hospital amounts to 170 beds.

*The following Table shows the Highest and Lowest number of beds occupied on any one night during each month of the year 1913:—*

TABLE H. I.

Month.	Beds Occupied.		Month.	Beds Occupied.	
	Highest.	Lowest.		Highest.	Lowest.
January ..	126	112	July .. ..	120	108
February ..	120	108	August .. ..	115	100
March .. ..	139	125	September ..	123	99
April .. ..	138	121	October .. ..	137	120
May .. ..	116	100	November ..	160	135
June .. ..	108	94	December ..	208	171

During 1913 the average daily number of cases under treatment amounted to 125·5 as compared with 134·9 in the previous year.

*The following Table gives the total number admitted from the Borough and other Districts during the year 1913:—*

TABLE H. II.

Districts.	Remaining at end of 1912.	Admitted during 1913.	Discharged during 1913.	Died during 1913.	Remaining at end of 1913.
*The Croydon Union cases admitted from Penge .. ..	—	1	1	—	—
Penge Urban D.C., non-pauper cases .. ..	10	77	64	3	21
The Borough of Croydon	113	†824	726	27	184
Total ..	123	902	791	30	205

\* In the above table cases included under the Croydon Union are only those pauper patients who have contracted the disease in Penge. Patients resident in the Infirmary or Workhouse who become infected whilst residents in these Institutions are reckoned as Croydon cases.

† Includes 8 admissions of the Staff suffering from, scarlet fever (3), diphtheria (3), mumps (1) and erysipelas (1).

The total number of patients admitted was 902 as compared with 1006 in 1912.

The following Table shows the comparative admissions during 1913 and previous years.

TABLE H. III.

Hospital diagnosis	Cases admitted during 1907.	Cases admitted during 1908.	Cases admitted during 1909.	Cases admitted during 1910.	Cases admitted during 1911.	Cases admitted during 1912.	Cases admitted during 1913.
Scarlet Fever .. ..	562	497	608	624	381	365	417 (1)
Diphtheria .. ..	249	354	292	222	430	600	402 (2)
Enteric Fever .. ..	10	59	11	15	18	16	28 (3)
Puerperal Fever .. ..	—	—	—	—	—	—	1
Pulmonary Phthisis ..	1	—	—	—	—	—	48
Other Diseases .. ..	42	31	45	47	29	25	6
Total .. ..	864	941	956	908	858	1006	902

1) Includes 1 case of Ichthyosis sent in as Scarlet Fever.

- „ 2 cases of Measles „ „ „  
 „ 3 „ in which no disease was detected sent in as Scarlet Fever.  
 „ 5 „ of Scarlet Fever complicated with Diphtheria.  
 „ 1 case of Scarlet Fever complicated with Measles.  
 2 cases of Scarlet Fever complicated with Whooping Cough.

(2) „ 7 „ of Tonsillitis sent in as Diphtheria.

- „ 2 „ of Laryngitis „ „  
 „ 1 case of Scarlet Fever „ „  
 „ 1 „ of Stomatitis „ „  
 „ 1 „ of Ophthalmia sent in as Diphtheritic Conjunctivitis.  
 „ 1 „ of Broncho-pneumonia sent in as Laryngeal Diphtheria  
 „ 1 „ of Diphtheria complicated with Measles.  
 „ 1 „ of „ „ „ Varicella.  
 „ 8 cases of „ „ „ Scarlet Fever.

(3) „ 2 „ of Tubercular Meningitis sent in as Enteric Fever.

- „ 1 case of Pulmonary Phthisis „ „ „  
 „ 1 „ of Cancer of Bowel „ „ „  
 „ 1 „ of Pregnancy „ „ „

The following Table gives the number of patients admitted for each disease, the number discharged or died, and average duration of stay in hospital for the year 1913 :—

TABLE H. IV.

Disease.	Remaining at end of 1912.	Admitted during 1913.	Discharged during 1913.	Died during 1913.	Remaining at end of 1913.	Average Resi- dence in days.	
						Fatal Cases.	Non- Fatal Cases.
Scarlet Fever ... ..	75	411	390	4	92	8·8	59·9
Cases admitted to Hospital as but subsequently found not to be Scarlet Fever ... ..	—	6	5	—	—	—	—
Diphtheria ... ..	44	389	323	13	97	8·1	48·2
Cases admitted to Hospital as but sub- sequently found not to be Diphtheria	—	13	13	—	—	—	—
Enteric Fever ... ..	3	23	20	5	1	19·3	54·8
Cases admitted to Hospital as but subsequently found not to be Enteric Fever ... ..	—	5	3	2	—	9	19·6
Pulmonary Phthisis ... ..	—	48	27	6	15	33·2	84·1
Other Diseases ... ..	1	7	8	—	—	—	—
Total ... ..	123	902	790	30	205	—	—

TABLE H. v.

The following Tables give the fatality from each disease :—

	1909.	1910.	1911.	1912.	1913.
Scarlet Fever ...	1·8	1·1	0·7	1·1	0·8
Diphtheria ...	7·4	6·3	8·3	3·6	3·02
Enteric Fever ...	8·3	6·6	11·1	25·0	19·2
Pulmonary Phthisis ...	—	—	—	—	12·5
Other Diseases ...	6·4	6·3	6·8	12·0	6·2
All Cases ...	3·9	2·8	5·0	3·2	2·9

Under other diseases are included the following :—

Cases notified as Scarlet Fever but not Scarlet Fever—

	Result.
Ichthyosis ... ..	1 ... Discharged.
Measles ... ..	2 ... Discharged.
No disease observed	3 ... Discharged.



*Notified as Diphtheria but found not to be Diphtheria—*

					<i>Result.</i>
Tonsillitis	...	...	7	...	Discharged.
Laryngitis	...	...	2	...	Do.
Scarlet Fever		...	1	...	Do.
Stomatitis		...	1	...	Do.
Ophthalmia		...	1	...	Do.
Bronchopneumonia	...		1	...	Do.

*Notified as Enteric Fever but found not to be Enteric Fever—*

				<i>Result.</i>
Tubercular Meningitis	2	...	...	Died.
Pulmonary Phthisis...	1	...	...	Discharged.
Carcinoma of Intestine	1	...	...	Discharged.
Pregnancy ... ..	1	...	...	Discharged.

*Other Admissions—*

Total	...	...	6
Mumps	...	...	1
Erysipelas	...	...	2
Measles	...	...	1
Infantile Paralysis	...	...	1
Ophthalmia	...	...	1

TABLE H. VI.

*Illness amongst the staff:—*

Scarlet Fever	...	...	...	3 cases.
Diphtheria	...	...	...	3 cases.
Mumps	...	...	...	1 case.
Erysipelas	...	...	...	1 case.
Other illnesses requiring treatment				12 cases.
Total				20 cases.

**AMBULANCE.**

386 journeys, including 75 journeys to Penge and Anerley.

Over and above these the Ambulance made numerous journeys to the Railway Stations, the Town Hall, Tuberculosis Dispensary, etc. In addition there was one removal from the Borough to Wimbledon, and 21 patients were removed from the Hospital to their homes,

## D.—REPORT ON THE BOROUGH LABORATORY.

For the first few years of its existence comparatively little use was made of the laboratory, as is shown by the following table :—

### Specimens examined for Diphtheria, Enteric Fever, and Tuberculosis.

Year.	Borough Cases (outside the Hospital.		Hospital Cases.	Totals
1897	...	85	.. not recorded	...
1898	...	125	... not recorded	...
1899	...	not recorded	... not recorded	...
1900	...	199	... 248	... 447
1901	...	784	... 885	... 1669
1902	...	698	... 859	... 1557
1903	...	1089	... 1322	... 2411
1904	...	2027	... 2494	... 4521
1905	...	2276	... 4164	... 6440
1906	...	2257	... 2485	... 4742
1907	...	2105	... 5154	... 7259
1908	...	3621	... 4582	... 8203
1909	...	3247	... 4876	... 8123
1910	...	2635	... 3734	... 6369
1911	...	4774	... 5296	... 10070
1912	...	6584	... 6924	... 13508
1913	...	4230	... 4256	... 8486

## CLINICAL BACTERIOLOGY.

The following is a summary of the number of specimens examined for suspected diphtheria, enteric fever, or tuberculosis :—

	Suspected Diphtheria.		Serum reaction for sus- pected Enteric Fever.		Sputum for suspected Tuberculosis.	
	1913		1913		1913	
	Borough	Hospital.	Borough	Hospital	Borough	Hospital
	3564	4140	100	28	531	48
Total ..	7704		128		579	

## DIPHThERIA.

During 1913 7,704 specimens were examined in the Laboratory. Of these specimens about one-fourth (1,926) were primary examination for diagnostic purposes. The remaining specimens were from "contacts" who had been exposed to diphtheria or from the throats of convalescents. The latter were examined with a view of ascertaining whether the bacillus of diphtheria was absent from the throat or nose. In some cases this organism was very persistent, requiring many examinations extending over many weeks before it was found to have disappeared.

Every case of Scarlet Fever admitted to the Hospital was also examined bacteriologically, in order to ascertain if diphtheria was present. Of these 6 per cent. were found, on admission, to have bacilli indistinguishable from diphtheria in the nose. 3.2 per cent. had similar bacilli in the throat, while 2 per cent. had similar bacilli in both nose and throat. All these patients were specially isolated to guard against the introduction of diphtheria into the scarlet fever wards.

A large number of the specimens examined were from cases of sore throat or nasal discharge occurring in children attending elementary schools. In some instances these "sore throats" turned out to be mild cases of diphtheria in which infection persisted for many weeks or months, though the children showed very little, if any, signs of ill-health.



## ENTERIC (TYPHOID) FEVER.

The total number of specimens from suspected enteric fever patients amounted to 128, of which 100 were received from medical men in the borough, and 28 examinations were made of patients in the Borough Hospital.

The following table gives a summary of the serum re-actions obtained in the laboratory during 1913 :—

### RESULTS OF EXAMINATIONS FOR DISEASES SIMULATING ENTERIC FEVER.

1913.					Examinations for Borough.			Examinations for Hospital.			Total.		
					Agglutinative Reactions.			Agglutinative Reactions.			Agglutinative Reactions for all purposes.		
					+	—	Total	+	—	Total	+	—	Total
January	...	...	...	...	2	2	4	2	—	2	4	2	6
February	...	...	...	...	8	5	13	7	—	7	15	5	20
March	...	...	...	...	2	10	12	1	—	1	3	10	13
April	...	...	...	...	—	9	9	1	—	1	1	9	10
May	...	...	...	...	4	4	8	2	1	3	6	5	11
June	..	...	...	...	—	7	7	1	1	2	1	8	9
July	...	...	...	...	—	2	2	—	1	1	—	3	3
August	...	...	...	...	—	4	4	—	—	0	—	4	4
September	...	...	...	...	6	2	8	2	—	2	8	2	10
October	...	...	...	...	2	5	7	2	2	4	4	7	11
November	...	...	...	...	1	11	12	1	2	3	2	13	15
December	...	...	...	...	3	11	14	2	—	2	5	11	16
First Quarter	...	...	...	...	12	17	29	10	0	10	22	17	39
Second „	...	...	...	...	4	20	24	4	2	6	8	22	30
Third „	...	...	...	..	6	8	14	2	1	3	8	9	17
Fourth „	...	..	..	...	6	57	33	5	4	9	11	31	42
Total	...	...	...	...	28	72	100	21	7	28	49	79	128

## TUBERCULOSIS.

The number of specimens examined during the year amounted to 579, of which 48 were from patients already in the Hospital. Out of the total number of examinations 207 were found to contain the tubercle bacillus.

The following table shows the number of specimens examined for the detection of B. Tuberculosis during 1913:—

### RESULTS OF EXAMINATIONS FOR TUBERCULOSIS.

1913.					Examinations for the Borough.			Examinations for the Hospital.			Total.		
					All Examinations.			All Examinations.			All Examinations.		
					+	—	Total	+	—	Total	+	—	Total
January	...	...	...	...	8	32	40	3	—	3	11	32	43
February	.	.	.	...	15	56	71	7	1	8	22	57	79
March	...	...	...	...	13	35	48	4	—	4	17	35	52
April	...	...	...	...	8	24	32	4	—	4	12	24	36
May	...	...	...	...	16	23	39	2	—	2	18	23	41
June	...	...	...	...	21	11	32	3	—	3	24	11	35
July	...	...	...	...	15	28	43	2	—	2	17	28	45
August	...	...	...	...	11	27	38	8	1	9	19	28	47
September	...	...	...	...	20	20	40	3	1	4	23	21	44
October	...	...	...	...	12	53	65	3	1	4	15	54	69
November	...	...	...	...	12	29	41	2	1	3	14	30	44
December	...	...	...	...	13	29	42	2	—	2	15	29	44
First Quarter	...	...	...	...	36	123	159	14	1	15	50	124	174
Second „	...	...	...	...	45	58	103	9	—	9	54	58	112
Third „	...	...	...	...	46	75	121	13	2	15	59	77	136
Fourth „	...	...	...	...	37	111	148	7	2	9	44	113	157
Total	...	...	...	...	164*	367	531	43	5	48	207	372	579

\*This includes specimens sent from the Tuberculosis Dispensary.

### RINGWORM.

The number of specimens examined for the presence of this parasite amounted to four, of this number one was from a patient in the Hospital. Of the total examination two showed the presence of ringworm spores or mycelium and all were of the small spore variety. The number of specimens examined at the laboratory is not so great as formerly, the greater proportion being now examined at the Town Hall.

### MISCELLANEOUS EXAMINATIONS.

Various other bacteriological and microscopical examinations were made during the year, viz. :—

*Urines* :—

11 examined for the presence of tubercle bacillus.

20 „ „ „ „ typhoid baccillus.

*Pathological specimens* :—

5 for Gonococcus.

3 for Streptococcus.

3 for Pneumococcus.

1 specimen of milk for Diphtheria.

### PREPARATION OF MATERIAL.

In addition to the actual examinations of specimens much time has been occupied in the preparation of material needed for bacteriological work. Thus suitable “outfits” for the transmission of specimens to the laboratory in accordance with the requirements of the Postmaster General require careful preparation. 4,526 (3,726 Diphtheria, 664 Tuberculosis, 136 Enteric) of these “outfits” were supplied during the year for use by the Public Health staff and the medical men of the Borough.

The making of serum culture media commenced in 1906 for use in the laboratory has been continued this year. The blood is obtained from the Public Slaughter House, and prepared for use by the senior laboratory attendant (Harold Ashby) under the direction of the medical officers. 628 dozen tubes of blood serum were prepared in 1913.

The material prepared in this way during 1913, if reckoned at the commercial price, viz., 3s. 6d. per dozen tubes, would have cost £109 18s. od. In this way a great saving is made in the working expenses of the laboratory.

In addition to the serum media mentioned above 1,000 c.c. of Agar Agar Media, 1,000 c.c. of special media (McConkey, and 500 c.c. of Bouillon were made during the year.



Also a large number of vaccines of various organisms have been prepared in the laboratory throughout the year chiefly for use within the hospital and at the Tuberculosis Dispensary.

### MAINTENANCE OF BUILDINGS.

During the past year the first floor of " C " Block and the floor in " D " Block, the boards of which had become much worn, have been laid with " Euboelith " Plastic Composition.

An improved fire escape ladder, mounted on wheels, has been provided.

The tar paving of a portion of the corridors of communication has been renewed.

The following painting, etc., works have been carried out :—

External painting to old portion of Administrative Block, Laundry and Mortuary.

Internal painting and distempering to Staircases and Sisters' Bedrooms in old portion of Administrative Block.

Internal distempering to walls of " J " and " K " Blocks.

During the year the mains for the heating scheme and the provision of a new boiler for this purpose were carried to completion.

Pavilion K was halved by the provision of plate glass partitions to the verandahs, so that male and female patients might both be treated there for tubercular disease.

Five shelters for male tubercular patients were also provided during the year in the hospital grounds.

## **E.—REPORT TO THE EDUCATION COMMITTEE.**

*By Dr. R. Veitch Clark, School Medical Officer and Medical Officer of Health.*

PUBLIC HEALTH DEPARTMENT,  
TOWN HALL, CROYDON.  
12th June, 1914.

LADIES AND GENTLEMEN,

I have the honour of presenting the following report for the year 1913 of the work carried out by the staff of the Public Health Department, in connection with the Public Elementary Schools of the Borough.

This is the tenth annual report submitted to the Committee, and the sixth furnished in accordance with the requirements of the Board of Education.

The scope and arrangement of this report are in accordance with the suggestions of Circular 596 of the Board of Education.

On December 31st, 1913, there were within the Croydon area :

20 Provided Schools, including 55 departments, with recognised accommodation for 20,911 children as compared with 20,157 in 1912.

14 Non-Provided Schools, including 34 departments, with accommodation for 5,493 children. The number of Schools, departments and accommodation was the same in 1912.

The total provision for Elementary School children in the Borough therefore amounted to 34 schools, with 89 departments and accommodation for 26,404 children, as compared with 25,650 in 1912.

The number of children on the register on December 31st, 1913, was 24,905, as compared with 24,313 in 1912.

The changes in the school buildings and accommodation which have taken place during the year are as follows, viz. :—

### *Tamworth Road School.*

This School was closed after the summer holidays for rebuilding : the staff and scholars were transferred to the Central Polytechnic, which had recently been vacated by the Borough Secondary School.

*Ecclesbourne Road School.*

Four new class rooms have been added providing additional accommodation for 100 boys and 100 girls.

*Stanford Road School.*

Reference to this school was made in the last annual report. These buildings were opened on the 31st March, 1913, and provide accommodation for 852 scholars.

It is desirable again to emphasize the following principles as being essential in the hygienic furnishing and fitting of schools :—

- (1.) Flooring sufficiently impervious to allow of thorough cleansing of its surfaces.
- (2.) The choice of a type of desk that offers the least possible obstacle to the sweeping and cleansing of the floors. At least 10 per cent. of single adjustable desks should be provided—a percentage roughly corresponding with the number of children likely to require special consideration in arrangements of seats.
- (3.) The provision of suitable fixed cupboards in place of movable furniture on which dust lodges.
- (4.) Sanitary conveniences suitably separated from the School buildings but under the direct supervision of the head teacher.

The temporary buildings at Boston Road and South Norwood Schools and also at Portland Road Mixed School are still in use. The use of the temporary building at the last named school will be discontinued when the new school at Long Lane is built.

It is important to observe, in providing temporary buildings in connection with schools, that the Doecker type is much the most efficient from the point of view of the health of the children.

**EQUIPMENT.**

During 1913 considerable progress has been made in the re-desking of schools. The following desks have been supplied :—

Brighton Road	...	Boys	...	20 dual desks
„	...	Girls	...	100 dual desks.
Mitcham Road	...	Boys	...	80 dual desks.
„	...	Girls	...	114 dual desks.
„	...	Infants	...	54 dual desks.



Princess Road	...	Boys	...	70 dual desks.
"	...	Infants	...	4 dual desks.
South Norwood	...	Infants	...	16 dual desks.
Christ Church	...	Girls	...	65 dual desks.
"	...	Infants	...	32 dual desks.
St. Andrew's	...	Girls	...	14 dual desks.
St. Mark's	...	Girls	} ...	25 dual desks.
"	...	Infants		
St. Mary's	...	Mixed	} ...	18 dual desks.
"	...	Infants		

It is of great importance to the well-being of school children of an abnormal size that suitable adjustable seats and desks should be provided for them. It is with special pleasure that I note therefore that we have fifteen special desks in use for school children suffering from spinal curvature: there is no doubt, however, that the number of special seats might with advantage be increased.

### SANITARY CONVENIENCES.

The whole of the schools in the Borough are subject to periodical inspection by the sanitary inspectors in so far as the sanitary arrangements are concerned. During the year various sanitary works were carried out at 26 schools; these consisted principally of clearing ventilation pipes and cleansing drains. In some instances the drains had to be relaid and other alterations of similar character carried out, and I would especially mention the substitution of modern pedestal water closets throughout the whole of the Mitcham Road School offices in place of the old-fashioned trough closets and similar alterations which have been carried out at the boys' department of the Shirley School. These are, in my opinion, highly important alterations, and should tend to the cultivation of cleanly habits in and also to the better health of the school children.

### ORGANIZATION AND CO-ORDINATION OF SCHOOL AND OTHER PUBLIC HEALTH WORK.

During 1913—as in the previous year—several changes occurred in the staff of the school medical department. Dr. M. B. Arnold was appointed a Medical Inspector on the staff of the Local Government Board, and left Croydon about the end of January. In succeeding him, I was unable to take up my duties here until the middle of March, and from the beginning of the year until that date Dr. Linton acted as Medical Officer of Health and School Medical Officer. Dr. Linton in turn was appointed Medical Officer of Health for the Borough of Royal Tunbridge Wells early in the winter of 1913-4, and left Croydon in the beginning of

December. His successor—Dr. J. Johnstone Jervis—did not take up his duties until January, 1914. In consequence of these changes a large amount of time was lost to the school medical inspection, and the number of children examined has fallen very considerably as compared with past years, and as compared with the requirements of the Code.

As before, the services of a part time ophthalmic surgeon were available, two half-days per week being devoted to the work. For the first time in Croydon we have had the services of a part time dentist for the inspection and treatment of the teeth of school children. The services of this gentleman extended to two half-days per week.

The work of the Ophthalmic Surgeon and of the Dental Surgeon is detailed further on in the report. The whole time of one clerk, together with half the time of a second clerk, was taken up with school duties, as was also half the time of each of the six health visitors.

The ringworm clinic held at the Town Hall was maintained throughout the year, as Dr. Jervis, the senior resident medical officer at the Borough Hospital, undertook this work during the holidays of the Assistant School Medical Officer.

Medical Inspection was limited to those children for whom the Code compelled us to make provision, together with an annually increasing number of children presented for special examination at the suggestion of the teachers, attendance officers, attendance committee, or magistrates.

The work of arranging for medical inspections has been carried on as before very efficiently by the Clerk in charge on lines similar to those detailed in previous reports.

#### **BOARD'S SCHEDULE OF MEDICAL INSPECTION.**

Medical inspection was carried out in conformity with the schedule of the Board.

#### **ASSISTANCE TO THE SCHOOL MEDICAL OFFICER AND HIS ASSISTANT.**

The work of the Health Visitors is set out in detail in Table E. XII.

I have pleasure in putting on record the fact that the relationship between the general education staff and the school medical staff continues to be of the most harmonious description. The work of the medical inspections is carried out without hitch, and largely owing to the hearty co-operation of the teachers and school attendance officers, with a high degree of efficiency.



### ATTENDANCE OF PARENTS OR GUARDIANS.

This has been secured as heretofore by written notices despatched by head teachers prior to the medical inspections. The parents or guardians of children inspected were present in 2,283 instances, out of 3,759 children inspected, or 61 per cent. This proportion is 8 per cent. higher than in 1912, and 16 per cent. higher than in 1911. In the infants' schools 1,903 parents or guardians were present at the inspection of 2,887 children or 65 per cent. compared with 62 per cent. present in 1912. The attendance of parents along with their children at medical inspections is slightly larger than last year which showed a marked increase in its turn upon the year 1911. This augurs well for the continued success of school medical inspections and it is a matter of especial pleasure that the parents attend in very considerable numbers at the Clinic in the Town Hall when special examinations have to be made of the children.

### EXTENT AND SCOPE OF MEDICAL INSPECTION DURING THE YEAR.

For the most part children have been selected for medical inspection in accordance with the requirements of Section 58 (h) of the Code.

The following table shows the number of children whose medical inspection schedules were completed during 1913:—

TABLE E. I.

Total number inspected during 1913.

Age.	Number of Boys.	Number of Girls.	Total.
4-5	111	59	170
5-6	1074	841	1915
6-7	283	318	601
7-8	75	92	167
8-9	11	22	33
9-10	1	...	1
10-11	...	1	1
11-12	4	1	5
12-13	186	183	369
13-14	239	252	491
14-15	5	1	6
Total all ages ...	1989	1770	3759



TABLE E. II.

Total number inspected during 1913 classified according to the schools attended at the end of the year :—

COUNCIL SCHOOLS :—			BOYS.		GIRLS.
Beulah Road	Boys	...	47	...	—
"	Girls	...	—	...	24
"	Infants	...	64	...	50
Boston Road	Boys	...	21	...	—
"	Girls	...	—	...	47
"	Infants	...	32	...	38
Brighton Road	Boys	...	—	...	—
"	Girls	...	—	...	38
"	Infants	...	51	...	54
Davidson Road	Boys	..	—	...	—
"	Girls	...	—	...	—
"	Infants	...	78	...	75
Dering Place	Mixed	...	10	...	12
"	Infants	...	33	...	22
Ecclesbourne Road	Boys	...	—	...	—
"	Girls	...	—	...	—
"	Infants	...	79	..	56
Ingram Road	Boys	...	24	...	—
"	Girls	...	—	..	—
"	Infants	...	74	...	48
Mitcham Road	Boys	...	51	...	—
"	Girls	...	—	...	29
"	Infants	...	59	..	42
Oval Road	Boys	...	10	...	—
"	Girls	...	—	...	40
"	Infants	...	77	...	51
Portland Road	Mixed	...	—	...	—
"	Girls	...	—	...	71
"	Infants	...	104	...	89
Princess Road	Boys	...	—	...	—
"	Girls	...	—	...	—
"	Infants	...	81	...	28
South Norwood	Boys	...	49	...	—
"	Girls	...	—	...	—
"	Infants	...	39	...	31
Stanford Road	Sen. Mixed...	...	—	...	—
"	Jun. Mxd. & Infts....	...	49	.	28
Sydenham Road	Boys	...	44	...	—
"	Girls	...	—	...	47
"	Infants	...	48	...	41
Carried forward			1124	...	961

	Brought forward	...	1124	...	961
Tamworth Road	Boys	...	24	...	—
Tavistock Grove Sen.	Mixed	...	—	...	—
„ Jun. Mixd. & Infts.		...	42	...	43
Upper Norwood	Mixed	...	11	...	10
„	Infants	...	30	...	33
Whitehorse Road	Boys	...	21	...	—
„	Girls	...	—	...	—
„	Infants	...	100	...	86
Winterbourne Road	Boys	...	20	...	—
„	Girls	...	—	...	41
„	Infants	...	84	...	73
Woodside	Boys	...	46	...	—
„	Girls	...	—	...	—
„	Infants	...	67	...	59
	Total	...	1569		1306
COUNCIL (NON-PROVIDED) SCHOOLS :—					
All Saints	Boys	...	—	...	—
„	Girls	...	—	...	—
„	Infants	...	28	...	48
Christ Church	Boys	...	27	...	—
„	Girls	...	—	...	—
„	Infants	...	40	...	34
„ (Wildbores)	Infants	...	11	...	13
Holy Trinity	Mixed	...	—	...	—
„	Infants	...	23	...	20
Parish Church	Sen. Boys	...	22	...	—
„	Girls	...	—	...	37
„	Infants	...	82	...	82
St. Andrew's	Boys	...	—	...	—
„	Girls	...	—	...	—
„	Infants	...	32	...	42
„ (Old Town)	Mixed	...	—	...	2
„	Infants	...	12	...	16
St. Joseph's	Mixed	...	3	...	9
„	Infants	...	17	...	12
St. Mark's	Girls	...	—	...	18
„	Infants	...	10	...	17
St. Mary's	Mixed	...	—	...	10
„	Infants	...	9	...	16
St. Michael's	Mixed	...	—	...	—
„	Infants	...	11	...	13
St. Saviour's	Boys	...	—	...	—
„	Girls	...	—	...	—
„	Infants	...	28	...	20
	Carried forward	...	355	...	409

Brought forward	...	355	...	409
Archbishop Tenison's Boys	...	—	...	—
„ Girls	...	—	...	—
St. Peter's Infants	...	53	...	42
Shirley Mixed	...	4	...	3
„ Infants	...	8	...	10
Total		420		464
		BOYS.	GIRLS	
Total Provided Schools	...	1569	1306	
„ Non-Provided Schools		420	464	
		1989	1770	
Grand Total	...	3759		

The corresponding total for 1912 was 5,670. (There is, however, a considerable falling off in the number of children examined during the year 1913, as contrasted with the numbers examined during 1912. This has arisen from the disturbance of the work of the Public Health and School Medical Service of the Borough during the year owing to changes in the medical staff—a period of at least 3 months being almost altogether lost to the school medical inspection).

In addition to the children whose medical inspection schedules were completed during 1913, and apart from children seen at the Town Hall, 252 children were re-inspected, and 232 specially inspected at the request of the teachers or for other reasons.

### GENERAL DIRECTIONS TO PARENTS.

In 1,920 instances written and verbal directions were sent to parents, while in 2,282 instances printed directions were given.

### THE WORK OF THE OPHTHALMIC SURGEON.

Cases of defective eyesight amongst the school children have been referred to the Department by exactly the same methods as those described in the report for 1912; it is unnecessary, therefore, to enter into details except to say that the assistance rendered in this direction by the teaching staff continues to be of the greatest service.

Mr. Wray, the special ophthalmic surgeon, has examined more children during the year than was the case in 1912; the figures are given in tabular form below. I should like here to mention especially the great services rendered by Mr. Wray to the Depart-



ment and to the Borough in connection with the outbreak of contagious conjunctivitis which afflicted several of the schools, more particularly during the second quarter of the year. The number of cases of this disease seen by Mr. Wray during the various quarters are as follows, viz. :—

First quarter	...	...	...	41
Second „	...	...	...	551
Third „	...	...	...	160
Fourth „	...	...	...	72
Total	...	...	...	<u>824</u>

Mr. Wray has also made special visits to several schools with a view to himself personally discovering and remedying those cases of very pronounced optical defect in the eyes which form such a grave disadvantage in the education of children.

The number of refractions done is less to a considerable extent than in 1912; the figures being 598 in 1912 and 156 for 1913. This diminution, large though it is, is entirely to be attributed to the enormous amount of work entailed in the diagnosis and treatment of the cases of infectious conjunctivitis with which the department had to deal.

In table E VII. the vision taken into account has been that of the *better eye*. Children whose one eye was normal and the other markedly defective, though not included in the table, were referred to the Ophthalmic Surgeon.

The following is a summary of the work done by Mr. Wray at the Town Hall :—

Total No. of children examined, 1,304.  
 „ „ „ attendances ... 3,339.

TABLE E. III.

<i>Children refracted</i>	...	...	...	...	156
Glasses were ordered for	...	...	...	136	
Glasses not needing changing	...	...	...	4	
Glasses not advised at present	...	...	...	10	
Vision found normal	...	...	...	6	
				<u>    </u>	<u>156</u>

Binocular vision exercises were ordered for 7 cases of Strabismus.

*In addition—*

*Glasses were needed and ordered as follows :—*

Myopia	...	...	...	...	26
Hypermetropia	...	...	...	...	31
Astigmatism, myopic	...	...	...	...	15
„ hypermetropic	...	...	...	...	21
Anisometropia	...	...	...	...	8
Strabismus	...	...	...	...	35
					<hr/> 136

*Hospital advised for three cases.*

*Of the glasses ordered 80 were urgently needed, and were as follows :—*

Myopia	...	...	...	...	22
Hypermetropia	...	...	...	...	7
Astigmatism, myopic	...	...	...	...	12
„ hypermetropic	...	...	...	...	7
Anisometropia	...	...	...	...	1
Strabismus, internus	...	...	...	...	22
„ externus	...	...	...	...	3
„ periodic	...	...	...	...	1
„ alternating	...	...	...	...	5
					<hr/> 80

*Other diseases treated and advised, were :—*

Ulcer of cornea	...	...	...	...	11
Blepharitis	...	...	...	...	73
Conjunctivitis	..	...	...	...	824
„ follicular	...	...	...	...	1
Phlyctenula	..	...	...	...	19
Nystagmus	...	...	...	...	2
Nebula	...	...	...	...	3
Hordeolum	...	...	...	...	19
Neoplasm of conjunctiva	...	...	...	...	1
Ophthalmia, Granular	...	...	...	...	1
Retinitis pigmentosa	...	...	...	...	1
Paresis (left ext. rect.)	...	...	...	...	1
Chalazion	...	...	...	...	1
Keratitis	...	...	...	...	1
„ Interstitial	...	...	...	...	1
Orbital growth	...	...	...	...	1
Incision of canaliculi	...	...	...	...	1
Cataract	...	...	...	...	2
anterior polar	...	...	...	...	1
lamellar	...	...	...	...	1
and shrunken lens	...	...	...	...	1

Carried forward ... 966

Brought forward	...	...	...	966
Muco-Purulent ophthalmia	...	...	...	131
Epiphora	...	...	...	3
Ectropion—commencing	...	...	...	1
Abscess of lid	...	...	...	2
Chancre of lid	...	...	...	1
Diphtheritic conjunctivitis	...	...	...	1
				<hr/>
				1,105
				<hr/>

### INFECTIOUS CONJUNCTIVITIS.

This disease visited the school children in Croydon with exceptional severity. During the period covered by this report the schools principally affected were Mitcham Road, Boston Road, Princess Road, St. Mary's, and Ingram Road. The cases seen in the various quarters of the year were as follows:—

First quarter	...	...	...	41
Second „	...	...	...	551
Third „	...	...	...	160
Fourth „	...	...	...	72
				<hr/>
Total	...	...	...	824
				<hr/>

The outbreak was therefore at its height during the spring and early summer months.

It appears desirable to give an account of the method of dealing with an outbreak of such unusual dimensions. In the first place information of the cases was generally obtained by notification from the teachers; instructions were given to them to notify all cases which exhibited even slight indication of eye trouble, and to facilitate this and to increase the general knowledge of the condition amongst both the teaching staff and the public generally a pamphlet describing this affection, which is reproduced at the end of this paragraph, was widely distributed. The schools also were constantly visited both by the medical members and the health visitors of the public health staff. All cases of the disease and all contacts with cases were excluded from school until they were medically certified to be free from infection. The schools were frequently disinfected, special attention in this respect being paid to the desks, pencils, books, and other articles handled or used by the children. The plasticene employed in the schools affected was destroyed.

The cases were treated either at home by private medical attendance or in the School clinic at the Town Hall. In addition to this, during the Whitsuntide holiday, and also during



the summer vacation in August, a special temporary clinic was established at Mitcham Road School. At the school clinic in the Town Hall the children could only attend twice a week, but in the temporary clinic the children were instructed to attend twice daily so that they might actually receive the treatment advised. It was found necessary to establish these temporary clinics owing to the fact that in a very large number of instances the treatment recommended was inefficiently carried out. I should be wanting in gratitude were I not to record the enthusiastic and willing services rendered by the teaching staff, especially of Miss Livingston and the rest of the staff at the Mitcham Road Schools in helping us to combat this condition amongst the school children.

During the second temporary clinic the attendance was never good, and it fell away very rapidly indeed, and in the fourth quarter of the year the cases of conjunctivitis soon diminished practically to vanishing point.

The spread of this type of conjunctivitis to so many schools in the town was undoubtedly due to the migration of families from one district to another. On several occasions such families were traced.

Several of the schools affected were closed for varying periods. It was in such cases hoped that by this means the communication amongst children should be lessened and that they might by "whipping up" attend the clinic and that we would have the condition stamped out before the school re-opened. This hope was not in the slightest sense realised, and I am convinced that school closure is altogether ineffective in dealing with this condition in towns. By far the most efficient method is to keep the school open, have every suspicious case notified and examined, and if diagnosed as infectious conjunctivitis, excluded. The greatest difficulty arose from the fact that in the families individuals outside of the school age were infected and apparently did not take any trouble to have the condition treated. In this way school children who had been treated and cured frequently had to be re-excluded after returning to school owing to re-infection.

Children suffering from the malady were also forbidden to attend the public baths, as is shown in the subjoined copy of a letter from the Clerk to the Education Committee.

## COUNTY BOROUGH OF CROYDON.

## INFECTIOUS INFLAMMATION OF THE EYES.

This is a condition which, though not dangerous to life, may have extremely serious results upon the eye-sight of the individual affected if proper treatment be not obtained.

The earliest signs of the onset are blinking and rubbing of the eyes (due to the feeling of irritation) and the appearance (generally at the inner corner of the eye) of a small accumulation of matterly substance; very often the eyelids are found to be sticking to each other in the morning so that the eye cannot be opened until the matter has been bathed away with tepid water. When the condition is more advanced, the eye appears blood-shot and often highly inflamed.

The condition is very infectious, and every effort should be made to keep the patient separate from other members of the family, and to keep all articles used by the patient solely for his or her use. If this be not done, it is certain that the disease will infect other members of the household.

No child suffering from this condition, and no member of the family in which the disease is present, should attend school until the family has been medically certified as free from infection.

No child should be allowed to visit the infected house.

Domestic animals should not be kept in infected households.

Notice should be sent to the Public Health Department if there are any Public Library books in the house, and no book must be borrowed until the house is free from infection.

Personal cleanliness must be strictly insured both in the patient and in those looking after the patient. The hands should be thoroughly washed after contact with the eyes or person of the patient.

It is of the utmost importance that medical attention should be obtained whenever the disease shows itself.

R. VEITCH CLARK,

*Medical Officer of Health,*

PUBLIC HEALTH DEPARTMENT,  
TOWN HALL, CROYDON.

## CROYDON EDUCATION COMMITTEE.

EDUCATION OFFICE,  
KATHARINE STREET, CROYDON.

June, 1913.

Dear Sir or Madam,

In view of the fact that your child is at present excluded from school on account of eye trouble, he or she must not on any account whatever be allowed to attend the Public Baths until declared free by the Medical Officer.

Yours truly,

JAMES SMYTH,  
*Clerk.*

**WORK OF SCHOOL DENTIST.**

This is the first annual report of the actual working of the dental clinic.

The dental work amongst school children has been carried out during the past year on the lines indicated in the previous annual report.

Mr. A. Brearley Oddie, L.D.S., has devoted two afternoons per week throughout the school terms to the inspection and treatment of the teeth of school children between six and seven years of age. This age period was selected as it marks the beginning of the appearance of the permanent set of teeth, and it is important that at this time the mouth should be clean, so that the permanent teeth may have a good chance of remaining healthy.

The special dental inspections have been held separately from the medical inspections—it was found to be very inconvenient to combine them. The scope of the treatment is adequately shown in the subjoined tables. I am pleased to be able to report that with very few exceptions the support of the parents in this work has been very satisfactory, and the benefits accruing to the children much appreciated.

The subjoined tables are self-explanatory, and it is necessary to emphasize only Table E v. In it is shown the results of re-inspections of teeth after a period of about 9 to 12 months—32 per cent. of children previously “all sound” dentally have carious teeth, and 52.4 per cent. of those previously treated have again got decayed teeth. The need of re-inspection—already pressed for by the Board of Education—is clearly demonstrated in these results.



TABLE E. IV.  
**DENTAL CLINIC.**

**Inspection of Schools**

Date.	School.	Children Examined.			Teeth all sound.		Teeth Defective.		Percent'ge with Sound Teeth.	
		Boys.	Girls.	Total.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1912.										
Nov. 16	Woodside Infants ...	45	41	86	8	10	37	31	17.7	24.4
" 19	Winterbourne Infants ...	51	51	102	14	5	37	46	27.5	9.8
" 22	Oval Road Infants ...	35	34	69	9	12	26	22	25.7	35.3
" 26	Portland Road Infants ...	48	57	105	10	9	38	48	20.8	15.8
" 29	Sydenham Road Infants	44	42	86	10	11	34	31	22.7	26.2
1913.										
Feb. 21	Parish Church ...	44	44	88	11	7	33	37	25.0	15.9
" 25	St. Peter's ...	42	46	88	2	7	40	39	4.75	15.2
Mar. 18	Tavistock Infants ...	37	55	92	6	13	31	42	16.2	23.6
May 20	Boston Road Infants ...	48	47	95	14	13	34	34	29.16	27.66
June 6	Ecclesbourne Rd Infts.	65	61	126	20	10	45	51	30.8	16.4
" 13	Whitehorse Road Infants	50	51	101	11	7	39	44	22.0	13.7
" 17	St. Andrew's ...	24	35	59	13	5	11	30	54.1	14.3
" 17	Dering Place ...	18	25	43	4	3	14	22	22.2	12.0
Aug. 29	Davidson Road Infants...	55	41	96	11	13	44	28	20.0	31.7
Sept. 2	Brighton Road Infants ...	37	34	71	6	10	31	24	16.2	29.4
" 5	Beulah Road ...	56	56	112	13	12	43	44	23.2	21.4
" 9	St. Saviour's ...	31	22	53	9	5	22	17	29.0	22.7
" 9	Princess Road ...	30	34	64	10	8	20	26	33.3	23.5
Nov. 21	Mitcham Road ...	46	47	93	14	11	32	36	30.4	3.4
" 21	Boston Road ...	3	4	7	...	1	3	3	...	...
		809	827	1636	195	172	614	655	24.1	20.8

TABLE E. v.

DENTAL CLINIC.

Re-inspection of Schools—November, 1913.

Date.	School.	Children with teeth all sound at previous inspection. At re-inspection.				Children who were treated for caries discovered at previous inspection. At re-inspection.			
		All sound.		Requiring treatment.		Requiring no further treatment.		Requiring further treatment.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Nov. 4	Woodside ...	4	7	—	—	3	2	4	10
" 4	Portland Road ...	4	5	—	—	1	3	5	8
" 7	Winterbourne Road ...	5	1	5	1	2	4	3	6
" 7	Ecclesbourne Road ...	12	5	3	3	2	4	2	2
" 7	Whitehorse Road ...	9	3	2	1	—	1	3	—
" 11	Oval Road ...	4	5	3	4	2	1	3	1
" 11	Davidson Road ...	8	11	3	—	4	1	2	1
" 14	Parish Church ...	7	5	4	1	1	4	4	4
" 14	St. Andrew's ...	7	2	1	3	—	2	—	1
" 14	Dering Place ...	—	1	2	—	3	4	1	4
" 14	St. Peter's ...	—	1	2	4	7	6	1	2
" 18	Tavistock Grove ...	2	5	4	5	—	1	1	1
" 18	Sydenham Road ...	4	5	4	3	6	2	1	3
" 21	Boston Road ...	5	7	3	2	1	2	2	1
Totals ...		71	63	36	27	32	37	32	44
Percentage ...		68%		32%		47·6%		52·4%	

TABLE E. VI.

DENTAL CLINIC.

Particulars as to Fillings, etc.

Date.	Attendances.		Fillings.		Extractions.						Dressings.		Appointments for N2O Gas.		Remarks.
	Boys.	Girls.	Boys.	Girls.	Ordinary with local anaesthetic.		With N2O Gas.		Boys.	Girls.	Boys.	Girls.			
					Boys.	Girls.	Boys.	Girls.							
Dec.	19	14	29	25	7	...	...	2	...	...	4	7	5	5	One boy refused treatment.
January	39	43	48	43	2	12	...	...	7	29	15	13	8	11	do.
February	25	35	20	36	9	6	...	...	14	15	3	15	1	4	One girl refused treatment.
March	9	21	9	25	5	5	1	...	...	...	2	7	2	3	
April	39	50	52	68	16	12	4	...	20	25	12	15	5	12	
May	17	35	12	28	2	3	...	...	22	47	3	4	...	2	
June	15	31	10	22	1	7	...	...	7	22	7	5	8	4	Three children refused treatment.
July	27	48	18	48	10	12	...	...	33	21	10	3	5	13	Two girls refused treatment.
August— Sept.	31	41	22	41	8	6	...	...	13	33	...	18	11	9	One boy refused treatment.
October	58	54	42	36	14	8	...	3	46	31	3	1	13	10	Five children refused treatment.
Nov.	15	16	4	5	5	2	...	...	25	21	...	7	...	2	Two children refused treatment.
Dec.	29	26	40	28	7	3	...	...	...	...	7	23	5	5	
	323	414	306	405	86	76	6	6	187	244	66	133	63	80	



## HEIGHTS AND WEIGHTS.

The same tables were used as had been compiled for use in previous years.

## GENERAL RESULTS OF INSPECTIONS.

Defects found at inspections are given in Table E. vii. : no change in the headings has been made, the table being on similar lines to that used in the previous year.

## WANT OF CLEANLINESS.

**CONDITION OF THE HEADS.** Of the 3,759 children inspected, 29 heads were infected with live vermin at the time of inspection, and 478 other children had " nits " and 63 children had dirty heads apart from vermin. The proportion of children in whom head vermin was detected at medical inspections is about the same as in 1912, and the number in whom " nits " only were found has fallen below 13 per cent. as compared with 16 per cent. last year. The continued diminution of the percentage of cases in which " nits " are found was very satisfactory, as this is unquestionably the best evidence of an improvement in the cleanliness of the heads of the children. The incidence of " nits " is still greatest amongst the older girls, 26 per cent. of whom were infected with " nits " as compared with 32.5 last year. Nineteen per cent. of the infant girls were found to have " nits " in the head.

The proportion of children found infected with vermin of the body at medical inspections was 0.23 per cent. ; practically the same per centage as in 1912.

The arrangements for the cleansing of verminous children at the cleansing station opened in the year 1912 have on the whole been found to work satisfactorily, the total number of children cleansed at the station during the 12 months is 52.

## CLOTHING.

The number of school children estimated as having insufficient clothing in 1913 was 68, as compared with 150 in 1912. The much smaller number is apparently due to the smaller total of inspections made, but the percentage is also lessened, viz. : 1.1 per cent. contrasted with 2.6 per cent. in 1912. This deficiency varies materially with the condition of trade. Valuable help has been rendered in this matter by the school care committees in conjunction with the health visitors and teachers.









## **MALNUTRITION.**

391 cases (or 10 per cent.) of malnutrition have been noted during the year. This is an improvement as contrasted with 1912, when 13 per cent. of badly nourished children were observed amongst those inspected. The term malnutrition has been interpreted in a fairly wide manner to include children whose health is below par from various causes, for instance, insufficient or unsuitable food, stuffy ill-ventilated sleeping apartments, anæmia, naso-pharyngeal obstruction, marked dental caries, convalescence from various illnesses.

## **EYE DISEASES.**

External eye diseases, such as conjunctivitis, inflammation of the lids, etc., were noted in 114 instances. This number does not include any of the cases of infectious conjunctivitis or "blight." Where necessary these children are referred to Mr. Wray for treatment at the Town Hall. Sub-normal vision was noted in 162 instances. All children requiring further examination are referred to the Ophthalmic Surgeon.

## **TONSILS.**

Tonsils were considerably enlarged in 116 cases, slightly in 396 cases. Glands were found considerably enlarged in 51 cases and slightly in 288 cases. More or less marked nasal obstruction was found in 192 cases. Treatment was urged in those cases where the obstruction of the upper respiratory passages was sufficient to lead to mouth-breathing or where there was a history of recurrent sore throat, or of chronic or recurrent ear trouble. From figures supplied by the House Surgeons at the Croydon General Hospital, I find that 158 Croydon school children were operated upon at that institution. I have again to thank the House Surgeons for kindly supplying a list of patients treated week by week for tonsils and adenoids. This information is of practical value as it enables us to write to the teachers and emphasize the importance of after treatment.

## **EAR DISEASE.**

This was noted in 71 instances and deafness in 68 instances. The syringing of ears where deafness was due to accumulated wax was in a few instances undertaken by the health visitors when it seemed probable that otherwise no treatment would be undertaken. More satisfactory and continuous treatment in cases of ear discharge is desirable, but owing to the time of the health visitors

being so fully occupied, not much can be done under existing conditions. This is one of the conditions which with advantage may be treated at a local treatment centre such as is now under the consideration of the Committee (1914).

### DEFORMITIES.

Lateral curvature of the spine was noted in 7 instances. The rational treatment for this condition consists of remedial exercises.

Miss Appleton, who has voluntarily done much excellent work in past years for these deformities, continued to undertake the treatment of three groups of children twice a week at Whitehorse Road Centre for remedial exercises. These children were periodically examined by the School Medical Officer, who found that in every instance some improvement—in many cases of a very pronounced nature—had taken place.

The best thanks of the children and of the Committee are due to Miss Appleton for the ungrudging way in which she has given her time and skill to this class. The following is her report on the class :—

“ The classes were held on Monday and Wednesday afternoons from 3.30—5 p.m., each girl attending for half an hour twice weekly.

“ During the year 27 cases were treated—16 for lateral curvature of the spine and 11 for kyphosis and lordosis.

“ Of these cases, 6 were discharged as cured, 2—after treatment for some time—were considered by the doctor to need attention once a month only, 1 left the district, 4 left School, and 1 was sent to St. Bartholomew's Hospital for special treatment—leaving 13 girls still in attendance in December, 1913.

“ The work has been considerably helped by the provision of a Swedish wall bar, which has rendered the giving of suitable suspension exercises much less tiring both to patients and gymnast.”

Seven cases of spinal curvature were observed at the medical inspections in 1913 as contrasted with 10 cases in 1912. This is relatively a larger number, as the total number of medical inspections was smaller. The remedial class in my opinion should be

extended in this connection. It is also desirable to emphasize the importance of continued improvements in the seating and desking of the schools in relation to this condition.

Other deformities were noted in 54 instances. For most of these children little could be done, but in several instances advice was given as to the choice of apparatus, etc.

### **AFFECTIONS OF THE HEART.**

Affections of the heart were noted in 204 children. The heart has been examined as a routine practice in every case, and many of the conditions discovered had trivial effect on the health of the child. Though some were of a slight nature, associated with anæmia, debility or convalescence from a severe illness, many were rheumatic in origin. Appropriate advice was given in each case, and the following leaflet on rheumatism was made use of wherever it was deemed advisable. It has been arranged with the attendance officers that parents may use their discretion in keeping rheumatic children from school when they have aches or pains if they are provided with one of these warning notices, signed by the School Medical Officer.

### **COUNTY BOROUGH OF CROYDON.**

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#### **CONTROL OF RHEUMATIC FEVER.**

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Rheumatic attacks in children are very easily overlooked as the outward symptoms are usually quite trifling and likely to escape the notice of parents. At the same time these slight attacks may permanently damage a child's heart and produce very serious results in later life. Hence it is very important that treatment should be secured immediately for rheumatism in its earliest stages and mildest forms.

Symptoms which suggest that a child is suffering from the rheumatic poison :—

- (1.) Growing pains—especially pain in the hamstrings.
- (2.) Repeated sore throat or tonsilitis.
- (3.) Attacks of irritability, night terrors, twitching of face or fingers, or clumsiness in children not usually troubled in these ways.
- (4.) Certain Rashes.



Precautions that should be taken with *rheumatic children* :—

- (1.) Keep *limbs* and body warmly but lightly clothed, preferably with woollen underclothing. See leaflet on clothing.
- (2.) Put child to *bed*, and obtain medical advice whenever feverishness, growing pains, sore throat or other symptoms of rheumatism are noticed.
- (3.) Enlarged tonsils are better removed if a child suffers from repeated sore throat.

PUBLIC HEALTH DEPARTMENT,  
CROYDON.

### **LUNG DISEASES.**

In five instances tuberculosis of the lungs, and in three instances other forms of tuberculosis, was diagnosed at the inspections. Other lung diseases were noted in 154 instances. These mostly consist of slight bronchial catarrh, which is often present for long periods without much constitutional disturbance in flabby badly nourished children. Some of them were excluded from school on suspicion of tuberculosis of the lungs, which, with few exceptions, cannot be diagnosed definitely in its early stages on a single examination. Medical attention was urged in all such cases, and where this was not obtained re-inspection after a sufficient interval has been aimed at. Special care has been taken that school medical inspection of the children in relation to tuberculosis shall be co-related thoroughly with the work at the Tuberculosis Dispensary.

### **COMMUNICABLE DISEASES.**

At the routine inspections communicable diseases were diagnosed in 23 instances. These included diphtheria three, scarlet fever three, tuberculosis eight. These numbers are, of course, in addition to the children who are specially examined on account of the known prevalence of some communicable disease in the school. Verminous cases, having been already mentioned, are not included in this number. When any special focus of infectious trouble appeared to be in a school special visits to the school were made by the School Medical Officer and his assistants.

### **MENTAL DISEASES.**

Seven children were noted to be mentally defective. In addition, nine others entered as mentally sub-normal may prove, on further observation, to be mentally defective.

A number of epileptic children were inspected or re-inspected.

**DENTAL DEFECTS.**

The prevalence of dental trouble is shown in the following table :—

TABLE E. VIII.

## BOYS.

Age.	Number Examined.	1-4 Decayed Teeth.	Over 4 Decayed Teeth.	Number with sound Teeth.	Percent'ge with sound Teeth.
4-5	111	40	19	52	46·9
5-6	1074	473	251	350	32·6
6-7	283	120	83	80	27·8
7-8	75	34	25	16	21·3
8-9	11	8	3	..	0·0
9-10	1	...	...	1	100·0
11-12	4	4	...	...	0·0
12-13	186	112	22	52	27·9
13-14	239	137	38	64	26·7
14-15	5	3	1	1	20·0

## GIRLS

4-5	59	30	7	22	37·2
5-6	841	365	224	252	29·9
6-7	318	137	90	91	28·6
7-8	92	47	28	17	18·4
8-9	22	11	6	5	22·5
10-11	1	1	...	...	0·0
11-12	1	1	...	...	0·0
12-13	183	109	21	53	28·9
13-14	252	145	31	76	30·1
14-15	1	...	...	1	100·0

The figures at the ages 5-7 and 12-14 are the most important as the large numbers examined at those ages give a more reliable average. The first annual report of the working of the school dental clinic is given in an earlier paragraph.

### **JUVENILE EMPLOYMENT.**

During 1913, the majority of the older boys inspected were questioned by the medical officer as to employment: in a few instances the head teacher had voluntarily filled in the necessary information as to employment on the inspection cards beforehand.

The nature of the work, and the hours of employment were also ascertained.

Apart from Saturday workers, a fairly large number of those to whom this question was put were employed as message-boys or in housework such as boot and knife cleaning, and on early morning milk and paper rounds. From these enquiries it appeared that the early morning workers suffered from debility and heart-weakness to an extent disproportionate to their numbers.

Questions elicited the information that the work was by no means invariably a matter of necessity, but was sometimes undertaken to earn pocket-money; such extra duties were discouraged whenever signs of overstrain were apparent.

### **METHODS EMPLOYED OR AVAILABLE FOR THE TREATMENT OF DEFECTS.**

During 1913 the Public Health Department continued to undertake the treatment of ringworm and minor skin complaints.

#### **WORK OF THE OPHTHALMIC SURGEON.**

*(See page 110).*

#### **WORK OF THE DENTAL SURGEON.**

*(See page 116).*

#### **RINGWORM.**

The arrangements described in previous Annual Reports have continued in force during the past year.

For the more distant cases a clinic has been held periodically at Rockmount Road School. This arrangement proved of benefit in keeping those distant cases under better observation than was



otherwise possible. School inspections were arranged for the schools at Rockmount Road or in the neighbourhood as often as possible to fit in with the dates of the ringworm clinics.

The following is the number of cases seen at Rockmount Road :—

1913.					
January 30th	...	...	...	...	3
April 24th	...	...	...	...	1
May 22nd	...	...	...	...	1
June 26th	...	...	...	...	2
July 17th	...	...	...	...	2
September 25th	...	...	...	...	3
October 30th	...	...	...	...	1
November 29th	...	...	...	...	2

The following table shows the number of cases supervised by the Public Health Department during 1913 :—

TABLE E. ix.

RINGWORM, 1913.

Total number outstanding Jan. 1st, 1913	Scalp	65	68	
	Body	3		
		—		
Total number reported during 1913 ...	Scalp	124	208	
	Body	84		
		—		
				276
Total number freed during 1913 ...	Scalp	144	227	227
	Body	83		
		—		
Total number outstanding Jan. 1st, 1914	Scalp	45	49	49
	Body	4		
		—		

The more serious cases continue to diminish in number, and the total number of new scalp cases during 1913 was 124, as compared with 172 in 1912 and 192 in 1911. The number of children excluded from school at the end of the year was 49, as compared with 68 twelve months previously. Of the 124 new scalp cases, 113 were treated at the Town Hall, 75 by application of X-rays, 38 by drugs. Forty suspicious cases were also examined and proved not to have ringworm. Altogether, 1,108 attendances were made by children at the Town Hall in connection with the treatment of this disease. Thirty-two cases of ringworm of the skin were also treated.

There can be no doubt that the diminution in the number of cases is due to the more rapid cure of many severe cases by the application of X-rays. There is still a certain number of long standing severe cases, in which the parents have refused the application of X-rays, and in which neither directions for treatment nor precautions against spread are adequately observed by parents. These continue to be sources of infection.

TABLE E. x.

Treatment and freeing weeks.				X-Rays treatment result 1913 No. of cases.			
2	—	4	...	...	...	...	5
4	—	6	...	...	...	...	17
6	—	8	...	...	...	...	28
8	—	10	...	...	...	...	9
10	—	12	...	...	...	...	7
12	—	14	...	...	...	...	1
14	—	16	...	...	...	...	2
16	—	20	...	...	...	...	2
20	—	30	...	...	...	...	2

Two cases are at present waiting to be freed, and one has left the borough without being freed. More than two-thirds of the children were freed for school in eight weeks from the application of X-rays, a result which compares favourably with the average time of freeing in previous years. The longer period necessary in some cases was due usually to non-attendance or very irregular attendance for after-treatment.

### **ACTION TAKEN TO PREVENT SPREAD OF INFECTIOUS DISEASES.**

The method of dealing with notifiable disease is dealt with in the report to the Sanitary Committee of the Council. During the year the undermentioned cases have been dealt with by the department :—

TABLE E. xi.

7,862 notices of illness (including duplicate notices) were received from School Teachers or Attendance Officers during 1913. 6,810 notices of illness were sent to the Education Committee by

the Public Health Department. These notices dealt with, amongst others, 6,080 school children actually suffering from the infectious diseases mentioned in the Table :—

Illness.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total
Scarlet Fever ... ..	41	53	53	69	216
Diphtheria ... ..	58	40	52	77	227
Measles ... ..	401	624	50	30	1105
Mumps ... ..	69	102	12	12	195
Whooping Cough ... ..	138	123	83	14	358
Chicken-pox ... ..	287	128	51	245	711
Sore Throat ... ..	58	26	26	69	179
Ringworm (scalp) ... ..	48	39	17	20	124
„ (body) ... ..	31	23	10	20	84
Impetigo ... ..	181	164	99	153	597
Scabies ... ..	9	16	2	9	36
Infectious Eye Disease ... ..	202	803	245	109	1359
Other diseases ... ..	281	255	142	211	889
Totals ... ..	1804	2396	842	1038	6080

The table has been modified to record only the number of actual sufferers from the infectious diseases therein mentioned, as it is thought that this information is of more practical use than a detailed record of the number of notices sent.

### WORK OF THE HEALTH VISITORS.

The five health visitors have largely been employed in visiting houses where non-notifiable infectious diseases have been reported by school teachers, in following up cases of children in whom remediable defects have been found, and in generally assisting in the work of medical inspection. The number of visits paid in connection with this part of their duty is shown in the following table :—

TABLE E. XII.

	1st visits	2nd visits.
Measles ... ..	1395	42
German Measles ... ..	22	1
Mumps ... ..	343	15
Whooping Cough ... ..	530	61
Chicken-pox ... ..	834	31
Sore Throat ... ..	940	293
Ringworm ... ..	278	295
Verminous Heads ... ..	2	—
Carried forward ... ..	4344	738



Brought forward ...	4344	...	738
Verminous Bodies ... ..	--	...	—
Impetigo Contagiosa ... ..	760	...	1089
Scabies ... ..	40	...	83
Other Diseases ... ..	1888	...	1148
	<hr/>		<hr/>
Totals ...	<u>7032</u>	...	<u>3058</u>
Cultures taken ... ..	1225	...	19
Visits paid to Elementary Schools for Medical Inspections ...	175	...	—
Other visits to Elementary Schools	116	...	—
Number of children prepared for medical inspection—			
Newly inspected ... ..	3759	...	—
Re-inspected ... ..	252	...	—
Specially inspected ...	232	...	—
Home visits arising out of medical inspection ... ..	698	...	451
Home visits for other information	244	...	24

Since 1903 the Health Visitors have delivered addresses to suitable audiences on "The care of young infants and domestic hygiene." During 1913 these lectures were delivered at Parents' Conferences at Ecclesbourne Road, Ingram Road, Portland Road, Sydenham Road, and Winterbourne Road Schools, to which were invited the parents of the children attending Ecclesbourne Road, St. Saviour's, Princess Road, Boston Road, Christ Church (Boston Road), Christ Church (Longley Road), Ingram Road, All Saints', Beulah Road, Portland Road, South Norwood, St. Mark's, Woodside, Sydenham Road, St. Michael's, St. Mary's, Tavistock Grove, Holy Trinity, Whitehorse Road, Winterbourne Road, and Stanford Road Schools.

A syllabus of the lectures is reproduced in the appendix.

On each of the four School Care Committees, one of the Health Visitors voluntarily gave her services during the year.

Part of the time of a sixth Health Visitor has been taken up in attendance at the school clinic at the Town Hall.

### SCHOOL CLOSURE.

During the year 1913, 21 infants' schools, 4 boys' schools, 5 girls' schools, and 4 mixed schools were closed in accordance with Article 45 (b) of the code. The reasons for closure were: 1 for chicken-pox, 14 for measles, mumps and whooping cough, 10 for eye disease, 9 for sickness of various kinds,

## EXCLUSION OF CHILDREN FROM SCHOOL.

During the year 101 children were excluded under Article 53 (b) of the code. This is in addition to the large number dealt with in accordance with the ordinary Standing Orders of the Committee.

## PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN.

At the end of the year the following Croydon children were under treatment in residential institutions outside the Borough :—

Blind	...	...	...	...	...	6
Deaf	...	...	...	...	...	11
Mentally defective	...	...	...	...	...	2
Epileptic	...	...	...	...	...	1

## AUXILIARY CLASS.

The class for mentally backward children at Grange Wood has been continued throughout the year, with, in most instances, marked benefit to the children sent there. In all cases the children benefited physically, and in the majority of instances the mental condition was also greatly improved. This class is doing extremely good work, and will be particularly useful in relation to the administration of the Mental Deficiency Act, 1913, as a means of observing cases where it is doubtful as to whether a child is actually mentally deficient or simply mentally backward. There were 7 fresh admissions to the class during the year. It is but just that special notice should be taken of the extremely capable services of Miss Holt in this class.

All the children were inspected and re-inspected, some of them several times, by the Medical Officer, who was well satisfied with the improvement resulting from improved environment and teaching.

## NECESSITY FOR FURTHER TREATMENT.

The lines upon which, in my opinion, the medical treatment and care of school children should be further developed are :

- (1) The extension of the dental clinic.
- (2) The extension of the spinal remedial classes at present carried on by Miss Appleton, and
- (3) The provision of open-air classes or schools for children suffering from malnutrition from any cause, children of tuberculous parents, and in general children whose physique demands specially healthy conditions.

It is of course in the knowledge of the Committee that these matters have been receiving consideration during the current year, and also that it is proposed that the present mode of treatment of the ailments of school children be extended by the provision of an auxiliary school treatment centre in one of the poorer quarters of the town.

For the treatment of children who are actually tuberculous it is especially desirable that an open-air school should be established in connection with the sanatorium provision which the local authority will be making in connection with the general tuberculosis scheme for the Borough.

### EXAMINATION OF BURSARS AND STUDENT TEACHERS.

Sixteen young persons who desired to become Bursars and Student-Teachers were medically examined during the year, all of whom were passed.

### SPECIAL EXAMINATION OF CHILDREN AT THE TOWN HALL.

There is again a large increase in the number of children seen at the Town Hall by the School Medical Officer at the request of the Education Committee's officers or of teachers or parents. Thus these inspections form no small proportion of the medical officers' work, as many of the children require very careful and thorough testing before an opinion can be passed as to their fitness, mentally or physically, for school attendance. The number seen were as follows :—

Children seen for the first time in 1913 :—

Diseases of Lungs	...	...	...	...	...	22
„ Heart	...	...	...	...	...	12
„ Ear, Throat and Nose	...	...	...	...	...	22
„ Skin	...	...	...	...	...	74
Ringworm :						
Scalp	...	...	...	...	...	81
Skin	...	...	...	...	...	32
					—	113
Mentally defective children	...	...	...	...	...	8
Mentally sub-normal	...	...	...	...	...	9
Spine	...	...	...	...	...	4
Rheumatism	...	...	...	...	...	13
Admission to Schools, Convalescent Homes	...	...	...	...	...	15
Hurst House Orphans	...	...	...	...	...	13
Eye diseases or defects	...	...	...	...	...	70
Glands	...	...	...	...	...	7
Nerves	...	...	...	...	...	21
Tubercle	...	...	...	...	...	7
Various	...	...	...	...	...	40



Total number of attendances, not including children seen by the dental or ophthalmic surgeons, 2,148.

### TEACHING OF INFANT CARE.

The Infant Care Class at the Tamworth Road School has been continued on the lines given below. It appears desirable to repeat this general description of these classes as in my opinion it is of the very greatest value that the future mothers should be educated to take an intelligent interest in the proper management of infants.

Girls from various schools in the Borough attended. The Medical Officer attended at 3 p.m. to see such infants as the mothers brought to him for advice on feeding and general care; the infants were regularly weighed at each attendance and opportunities were given to the girl members of the class to take part in the weighing of the infants. Records of the weights were kept. From 3.30 to 4 p.m. an address was given to the girls by the health visitor. (See syllabus of lectures on Infant Care in Appendix). In addition to these addresses the Medical Officer spoke to the girls as time permitted on simple health precautions and matters of interest connected with them. A point was made of having the infants' parents present during the addresses to the girls, and they were thus in an indirect manner interested in and instructed on many useful matters. Instructions in clothing the babies were rendered practical by means of a doll model.

During the year 1913 sixteen babies were brought to the consultations; of these

3 were attendances continued from 1912,  
13 were infants brought for the first time to the Centre,  
4 are still attending regularly.

\* It may be thought that the number of infants attending is very small, but it should be remembered that the primary object of the class is to educate the senior girls concerning infants and infant life—not in this instance to combat any special infantile condition in the district.

I am, Ladies and Gentlemen,

Your obedient servant,

R. VEITCH CLARK,

*School Medical Officer and Medical Officer of Health.*

# APPENDIX.

## Teaching of Infant Care.

3 — 3.30 p.m. Weighing of infants and advising of mothers (one girl to attend weighing of each child). Writing of notes of last lecture.

3.30 — 4 p.m. Lecture to Girls.

4 — 4.30 p.m. Mothers' tea and practical work.

## SYLLABUS OF LECTURES ON INFANT CARE, ETC.

1. *Care of Infants (Introductory).*
2. *Feeding.*
3. *Feeding (continued).*
4. *Clothing.*
5. *Cleanliness and training.*
6. *Sleep and exercise.*
7. *Weaning and Dentition.*
8. *Diseases of Infants.*
9. *Question on whole course.*
10. *Correction of questions. Summary.*

### LECTURE 1.

### Introduction.

*Infantile Mortality.*—Many deaths preventible. Need of education in care of children as in other matters. Suffering and sickness amongst those who survive, also caused by ignorance.

*Consider condition of young infant.*—Weakness of muscle (cannot turn, lift head, etc.). Softness of bone, delicacy of nerve, want of teeth, utter helplessness.

*Needs of infants.*—Food, sleep, suitable clothing, cleanliness, fresh air, tenderness in handling.

*Signs of health.*—Increase in weight, sleep, contentment, satisfactory action of bowels.

*Natural development of infant.*—Increased powers of sight, hearing, thinking. Appearance of the teeth, ability to walk and talk.

*Establishment of good habits.*—Regularity in feeding, in sleeping, and in obeying the calls of nature, in bathing, teaching of self-control.

*Evil results of mismanagement.*—Fretfulness, indigestion, thrush, skin disease, bronchitis, rickets, mouth breathing. Show table of Average Weights.

## LECTURE 2.

### Feeding (1).

Infants' powers of digestion. Size of stomach. Human milk the best food. How mother should procure good breast milk. Second best method of feeding, breast milk and cows' milk alternately. Why mother should not nurse at night only. No danger in supplementing breast milk with cows' milk. Average quantities of proteid, fat and sugar in human and cows' milk. How to make latter resemble human milk. Advantage of barley water over plain water. How to prepare barley water. Reason for boiling milk and water. Loss of fat in mixture compared to human milk, use of oil if required. Addition of sugar. The bottle. How to clean. Danger of dirt. Third method bottle only.

## LECTURE 3.

### Feeding (2).

Frequency of feeding, need of regularity, quantity given at each meal. Variation of mixture and increase of quantity at various ages. Foods other than cows' milk. Dried milk—Condensed milk : how they are prepared, their disadvantages. Patent foods, their expense and uselessness. Bread and biscuits. Results of, and want of fat and too early use of starchy foods.

## LECTURE 4.

### Clothing.

Objects of clothing, warmth and decency, not support. Stiff clothes no help to muscular development, nor preventive of evils from bad handling. Need of reform in infants' clothing. Wool preferable to cotton, dangers of flannelette. Number and shape of garments. Method of putting them on. Need of changing clothing at night. Short-coating. Avoid exposure of limbs.

## LECTURE 5.

### Cleanliness and Training.

Delicacy of infants' skin. Natural action of skin. Daily bath, its temperature, when and how to be given. Drying of the



infant, use of powder. Cleansing of eyes, ophthalmia and its results. Cleansing of the mouth, thrush. Cleansing of ears and scalp. Need of care in holding infants, weakness of muscle and bone. Care not to startle or excite infant, delicacy of nerve. Training in habits of cleanliness. Regularity of action of bowels.

## **LECTURE 6.**

### **Sleep and Exercise.**

Time to be spent in sleep. Fresh air day and night. Separate cot, how to make. Dangers of overlaying. Weight of bedclothes. Position of infant. Need of turning from side to side. Waking for food. Sleep in day-time. Importance of quiet. Training child to lie down. Importance of good habits. Exercise of muscles, crying and kicking. Crawling and learning to walk. Mouth breathing. Abuse of comforters.

## **LECTURE 7.**

### **Weaning and Dentition.**

Age for weaning from breast or bottle. Avoidance of hot weather for breast fed infant. Dangers of too prolonged nursing. Gradual method of weaning. Dangers of too much starch.

Diet from 9 to 18 months of age.

Dentition not a disease. Course of Dentition. Necessity for use and cleaning of teeth.

## **LECTURE 8.**

### **Diseases of Infants.**

*Ophthalmia*.—Cause. Prevention. Signs. Treatment.

*Thrush*.—Cause. Prevention. Signs. Treatment.

*Rickets*.—Cause. Prevention. Signs. Treatment.

*Epidemic Diarrhoea*.—Cause. Prevention. Signs. Treatment.

*Tuberculosis*.—Conveyance of contagion. Cooking of food. Dangers of expectoration. Signs of tubercle in infants. Flies and dust.

### **Parents' Conferences.**

## **THE HEALTH OF THE SCHOOL CHILD.**

School children must be healthy if they are to make the best use of their school time. The attention of parents is therefore directed to the following rules for health.

**Care of the Skin.**—If the skin is to be kept healthy, a warm bath should be given at least once a week. Daily cold sponging of the neck and chest strengthens healthy children and helps to ward off “colds.” The hands should be washed before each meal to avoid swallowing harmful dust and dirt.

**Care of the Teeth.**—Decayed teeth injure digestion, and are harmful in other ways. Children should use a tooth brush the last thing each night. Clean teeth rarely decay. Read the leaflet on Teeth. Too much pappy food is bad for the teeth.

**Care of the Hair.**—The hair of young children is best worn short. Older girls should have the hair tied back or plaited. Every child’s hair should be carefully combed with a fine comb each week in order to guard against the risks of vermin.

**\*Clothing.**—The most suitable outfit for a school boy consists of :—

- (1) A combination garment
- (2) Knickerbockers.
- (3) Woollen stockings.
- (4) Jersey of knitted wool.
- (5) Lace boots.
- (6) Straw hat or cloth cap.

The combination garment should have sleeves, and reach just below the knees. The best material is wool, either woven or one of the unshrinkable flannel mixtures. If flannelette is used it must be the kind that will not burn. Ordinary flannelette is dangerous.

For children in the baby class the combination is best replaced by a vest and drawers.

The knickerbockers should be of corduroy or stout serge, and supported by braces, or by being buttoned to a bodice in the case of infants. Suspenders should be used for the stockings.

A knitted vest is a useful addition in the winter time, when an overcoat is also required.

While it is a mistake to endeavour to harden children by exposing the limbs, too many garments hinder the free movement of the body and the proper use of the lungs. Over-clothing also leads to sweating during exercise, and consequent risk of chills.

The boots should be of the natural shape of the foot, straight on the inside edge, and allow plenty of room at the toes.

**Girls** should be dressed in the same way as boys (suitable knickerbockers included), but with the addition of a kilt supported from the shoulders by a cotton bodice. If preferred, the jersey and kilt may be replaced by a long-sleeved yoke frock, reaching just below the knee, made of material suitable for the season.

Patterns for making suitable garments for boys and girls may be borrowed from the Health Visitors.

**Sleep.**—All underclothing should be changed at night. A child should be accustomed to sleep on its side, in a quiet room with an open window. Children in the infants school require twelve hours' sleep, and half-an-hour's rest in the middle of the day. Older children require at least ten hours. Medical advice should be sought for children who persistently snore at night.

**Care of the Eyes.**—Children must not sew, read or write in a bad light. When reading or working, children should sit with their feet on the floor, their backs straight, and the book or work not less than a foot from the eyes. Children who constantly work in awkward, twisted positions are likely to get twisted backbones.

The attention of the head teacher should be directed to any child who cannot see properly, or has pain after reading, in order that the sight may be tested by the Medical Officer.

**The Feeding of School Children.**—Food is required for growth and to enable the body to do its work and keep up its warmth.

To enable food to perform its work it must be chewed and digested, hence children require not only sufficient, suitable food, but regular meals and sufficient time for meals with subsequent rest for half an hour. Children should not eat standing and be hurried back to school directly they have finished the last morsel. The bowels must also be relieved each day.

**Three necessary kinds of Food** which must all find their place in the daily supply :—

- (1) Starches and sugars. Such as potatoes, rice, sugar, etc.
- (2) Fats.
- (3) Meat and meat substitutes.



In selecting articles for diet we must consider :—

- (1) Their digestibility.
- (2) Their food value.
- (3) Their cost, *i.e.*, the amount we can buy for a given sum.

The real (strength giving) value of common food materials is best estimated by enquiring how much we can buy for say 1s., judged on this basis.

Flour, bread, oatmeal and sugar are the four cheapest articles of food.

Other really cheap foods are peas, lard, dripping, margarine and herrings.

A satisfactory diet must contain all three great classes of food stuffs. Some articles of food, such as milk, contain all three.

**Meat and Meat Substitutes.**—“Pieces” of lean meat can be bought for 3d. a lb., and are just as nutritious as a joint which costs twice as much. Hence “pieces” made in a stew or meat pudding are twice as good value as a joint.

There are also other substitutes (some cheap and some dear) for joints of meat, thus a 5-lb. joint costing approximately 2s. 6d. can be replaced by the consumption of :—

5-lbs. “pieces” at 4d.	...	...	...	...	1	8
5-lbs. ox liver at 5d.	...	...	...	...	2	1
18 herrings	...	...	...	...	1	0
3-lbs. cheese at 6d.	...	...	...	...	1	6
11-lbs. flour at 7-lbs. for 1s.	...	...	...	...	1	7
7-lbs. oatmeal at 2½d.	..	...	...	...	1	6
15-lbs. bread at 1½d.	...	...	...	...	1	10
6-lbs. split peas	...	...	...	...		7
5-lbs. lentils at 2½d.	...	...	...	...	1	0
8-lbs. haricots	...	...	...	...	1	1
12 quarts milk at 4d.	...	...	...	...	4	0
12 quarts skimmed milk at 2d.	...	...	...	...	2	0
61 eggs at 1d. each	...	...	..	...	5	1

This table shows the wisdom of buying "pieces," herrings, cheese, peas and beans. Many of the foods in this table can not only take the place of a joint, but contain large amounts of other valuable food materials. Thus cheese contains as much fat as it does "*meat*," while peas and beans contain not only "*meat*" but more than half their weight in starch.

Cheese, peas and beans should therefore be eaten in larger quantities than is now usual.

The second class of food which requires consideration is

**Fat.**—This includes butter, margarine and dripping, lard, suet.

Margarine is as nutritious as butter, and only one-third the cost. Dripping is well worth buying. It is extremely valuable food for children who will take it readily with bread or toast or as dripping pudding. Suet pudding should be given to children who dislike fat meat.

**Starch and Sugars.**—Sugar, bread, rice, oatmeal, etc., are usually eaten in sufficient quantity. It should be noted that jam is not a cheap substitute for butter. There is as much real food in 1-lb. of butter as in 3-lbs. of jam. If cost is an object it is cheaper and better to substitute margarine or dripping for butter. Fats must be given to growing children, and cannot be replaced by sugars and starch. Avoid patent foods, which are invariably dear. Cook potatoes in their jackets in order to improve their flavour and make use of all the food.

**Fluids for Children.**—Milk is the best drink for a growing child. Skim milk is valuable if full milk cannot be spared. If any other beverage is given let it be cocoa, and not tea or coffee. Water should be given at dinner. Beer or spirits should never be given except under medical advice in case of illness.

**Cooking.**—Not only choose the right material, but make it digestible and appetising by proper cooking. Advice may be sought from the Health Visitors, who will give you directions concerning the preparation of cheap, nourishing dishes, which have all been carefully selected for the purpose.

## COUNTY BOROUGH OF CROYDON.

## SCARLET FEVER OR SCARLATINA.

## HOME CASE.

Children from this house must not attend day or Sunday School or mix with other children until permission is given by the Medical Officer of Health.

All cases of "sore throat," "lumps in the neck," or of "peeling skin" occurring in the household are probably scarlatinal, and should be immediately reported to your Medical Attendant. Suspicion should also be roused by any sudden attack of illness, especially if beginning with vomiting.

Notice should be sent to the Health Department if there are any Public Library Books in the house, and no books must be borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and *no one except the person in charge allowed to enter the room.* All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and outer clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

No children should be allowed to visit the infected house.

*A patient suffering from this disease is generally DANGEROUS TO OTHERS for six or eight weeks, and must not be allowed to mix with other people until the Medical Attendant certifies that there is no danger. There is risk of infection while there is any discharge from ear or nose, or while the throat remains sore or unhealthy.*

## DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.



2.—Special cups, saucers, and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose, or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

4.—During recovery the patient should have a warm bath every day, unless the doctor orders otherwise. The body should be freely lathered with soap, special precaution being taken to thoroughly cleanse the hair and scalp.

5.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, etc., free of cost. The accompanying card should be returned when the patient is free from infection.

*Disinfectants are supplied free to home cases once a week on calling at the Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturdays 9 a.m. till 1 p.m.)*

*A penalty of £5 is attached to the exposure of infected persons and things*

## COUNTY BOROUGH OF CROYDON.

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### DIPHTHERIA AND MEMBRANOUS CROUP.

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#### HOME CASE.

Children from this house must not attend day or Sunday School or mix with other children until permission is given by the Medical Officer of Health.

All cases of croup, "sore throat" or "lumps in the neck" occurring in the household are probably diphtheritic, and should be immediately reported to your Medical Attendant. Diphtheria may also be limited to the nose. Bacteriological examinations are made free of charge on the request of the Medical Attendant.

Notice should be sent to the Health Department if there are any Public Library Books in the house, and no books must be borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and *no one except the person in charge allowed to enter the room*. All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and outer clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

*A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of at least three weeks, and must not be allowed to mix with other people during that period, or while there is any sore throat, or any discharge from ear or nose, or while diphtheria germs can be detected in the throat.*

Examinations for the detection of diphtheria germs are made at the Borough Laboratory, free of cost. The necessary arrangements will be made by your Medical Attendant.

#### DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose or mouth should be received on a rag, which should be at once burnt, as should also any dust collected in the room.

4.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, etc., free of cost. The accompanying card should be returned when the patient is free from infection.

All utensils from the sick room should be thoroughly scalded.

*Disinfectants are supplied free to home cases once a week on calling at the Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturdays 9 a.m. till 1 p.m.)*  
*A penalty of £5 is attached to the exposure of infected persons and things.*

## COUNTY BOROUGH OF CROYDON.

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### TYPHOID (ENTERIC) FEVER.

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#### HOME CASE.

All cases of "diarrhœa," "severe headache" or "feverishness" occurring in the household should be immediately reported to your Medical Attendant. Bacteriological examinations are made free of charge on the request of the Medical Attendant.

Notice should be sent to the Health Department if there are any Public Library Books in the house, and no books must be borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and *no one except the person in charge allowed to enter the room.* All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. *Fresh air* must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, and should always wash their hands and faces and change their shoes and outer clothes before going off duty. Scrupulous cleanliness is essential. Nurses should keep their nails short, and should scrub their hands and disinfect them immediately after attending the patient.



No domestic animal should be allowed to enter the sick room.

*A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of a fortnight after return to ordinary food.*

#### DISINFECTION.

All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for an hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Everything passing from the patient should be received into a mixture of water and disinfectant, sufficient being used to completely cover it, and be allowed to stand for half-an-hour before being thrown away, the vessel being covered with a cloth soaked in the disinfectant. Nothing coming from the patient must be thrown into the ash-bin, or upon the surface of the soil, or into the drains without disinfection.

4.—Discharges from ear, nose or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

5.—When the patient is free from infection, the Corporation undertake the disinfection of the sick room, bedding, etc., free of cost. The accompanying card should be returned when the patient is free from infection.

*Disinfectants are supplied free to home cases once a week on calling at the Health Department, Town Hall, between the hours of 9 a.m. and 5 p.m. (Saturdays 9 a.m. till 1 p.m.)*

*A penalty of £5 is attached to the exposure of infected persons and things*

## COUNTY BOROUGH OF CROYDON.

## PUERPERAL FEVER.

*Directions as to the disinfection of Midwives and Maternity Nurses.*

No Midwife or Nurse in attendance on a patient suffering from Puerperal Fever or other infectious illness should visit or attend any other patient.

Whenever a Midwife or Nurse has been in attendance upon a patient suffering from Puerperal Fever or from any other illness supposed or suspected to be infectious, she should conform to the following methods of disinfection at the conclusion of the case :—

1.—All washable clothing should be steeped in water to which a little soda has been added and then boiled. Gloves should be boiled.

2.—All other clothing should be disinfected at the Public Disinfecting Station. This will be done free of cost by the Corporation. Application should be made at the Public Health Department, Town Hall.

3.—The Nurse's bag should be disinfected by washing thoroughly inside and out with 1 in 1,000 perchloride of mercury solution.

4.—All instruments and nail-brushes should be boiled.

5.—A complete bath should be taken, soap being freely used. The nails should be cut short and the hands first scrubbed and then immersed for five minutes in 1 in 1,000 perchloride of mercury solution.

Midwives and Nurses must not resume work until they have satisfied the Corporation that the requirements of the Medical Officer of Health as regards disinfection and other precautions have been complied with.

## COUNTY BOROUGH OF CROYDON.

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 PUERPERAL FEVER & OTHER ACCIDENTS  
OF CHILDBIRTH.
 

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These are best avoided by attending to the following simple rules during pregnancy :—

*Diet* should be plain, easy of digestion, nutritious, and taken at regular intervals. Milk should be taken freely, and beer, wine or spirits only sparingly and under medical advice.

*Exercise* should be moderate in amount, and in the fresh air. Violent exercise and fatigue should be avoided.

*Rest* should be taken daily in the afternoons, and mental excitement avoided.

*Clothing* should be loose and warm, woollens being worn next the skin.

*Bathing* should be carefully attended to, especially towards the end of pregnancy.

*The Bowels* should act daily—cascara is a useful simple laxative.

*Infectious Disease.* Pregnant women should avoid contact with any kind of infectious disease, and with patients suffering from discharging sores.

*The Nipples* during the last two months of pregnancy should be bathed with boiled warm water, and glycerine of borax applied daily. When taken in labour the patient should have a warm bath, plenty of soap and water being used, and fresh clean underclothing put on.

## THE LYING-IN ROOM.

The room should be scrupulously clean, the window and grate register opened. In cold weather a small fire is necessary. The room should not have been recently used for any case of infectious disease. If there is any doubt about this the room will be disinfected free of charge on application to the Medical Officer of Health.



Two wash basins, a nail brush, soap and hot water, an efficient antiseptic, scissors, thread, and plenty of clean towels, and a binder with safety pins, should be prepared ready beforehand.

The patient should lie on a firm mattress with a clean mackintosh and sheets.

#### MATERNITY NURSE.

The nurse must be scrupulously clean in every way, and should not have been recently engaged in nursing any case of puerperal fever or other infectious disease. All maternity nurses are advised to procure a copy of the instructions issued by the Central Midwives' Board, and to follow the rules given therein with respect to clothing disinfection of appliances, and disinfection of the patient.

### COUNTY BOROUGH OF CROYDON.

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#### RINGWORM.

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The Medical Officer is authorised to treat free of charge children attending Public Elementary Schools who are suffering from Ringworm.

Unless your child is being treated by your own medical attendant at your expense, you should arrange with the Health Visitor for the case to be seen by one of the Medical Officers, who will instruct you how to proceed.

It is expected that parents will carefully follow instructions, so that a cure may be effected as promptly as possible.

Medical certificates of freedom from infection should be obtained from the medical attendant when cases under private doctors are cured. Children cannot be re-admitted to school unless this certificate is given to the Attendance Officer, or the child is examined and found free at the Town Hall on Wednesday or Saturday mornings at 9.

## COUNTY BOROUGH OF CROYDON.

## INFECTIOUS SCABS AND SORES.

(IMPETIGO CONTAGIOSA).

If the scabs are on the head, cut the hair for quarter-of-an-inch round the scabs, cover them with strips of rag soaked in olive oil until they can be removed. If the scabs are on the face, remove them by bathing with hot water.

Then apply dilute white precipitate ointment (ten grains to the ounce), which can be procured from any chemist.

It is no use applying the ointment until the scabs have been removed.

Any case of impetigo should be cured in a week. If it will not yield to above treatment it is imperative that medical advice should be obtained, as there may be some more serious affection.

## COUNTY BOROUGH OF CROYDON

## MEASLES.

*Measles is one of the most fatal diseases of children. It is also catching. Most deaths may be prevented by careful nursing*

*To assist recovery of patient.*

In every case seek medical advice.

Most deaths are due to children being exposed to unhealthy conditions while suffering from measles. Measles patients should be warmly clad, and kept in *a warm but well ventilated room* until they have quite recovered. The whole body, including arms and legs, should be clothed in flannel. *Remember that pure air is as necessary as warmth. The air of a dirty, stuffy room poisons the lungs, and is more dangerous than cold or even draughts.*

*To Prevent Spread.*

Separate the patient from all other children for at least three weeks after the appearance of the rash.

Measles usually begins with sneezing, coughing, running at the eyes and nose. All colds should, therefore, be looked upon with suspicion when Measles is prevalent. Keep apart any child so suffering for four days, when, if the disease is Measles, the rash will have appeared. No child suffering from a cold when measles is prevalent should be sent back to day or Sunday school until after four days from beginning of cold, even if cold appears better.

When the last case has recovered, disinfect the sick room by washing everything you can with soap and hot water; what you cannot wash should be aired in the garden. Keep the windows freely open, and take care that the sick child's clothes are washed before return to school.

Patients suffering from measles must be excluded from day or Sunday school for at least three weeks from the appearance of the rash and until the general health is restored.

Older children who have not previously had the disease must be kept at home for at least three weeks from the onset of the disease in the child first infected and may then return to day or Sunday school provided they are then free from symptoms.

Those who have already had Measles may be allowed to attend the departments of the school for older children, but not the Infant's School.

Infants living in infected houses must be excluded from school while there is infectious illness in the house.

*A penalty of £5 is attached to the exposure of infected persons and things*

## COUNTY BOROUGH OF CROYDON.

### WHOOPING COUGH.

*Whooping Cough is one of the most fatal diseases of children. It is also catching. Most deaths may be prevented by careful nursing.*

*To assist Recovery of Patient.*

In every case seek medical advice.

Most deaths are due to children being exposed to unhealthy conditions while suffering from Whooping Cough. The whole body, including arms and legs should be clothed in flannel. Remember that pure air is as necessary as warmth. The air of a dirty, stuffy room poisons the lungs, and is more dangerous than cold or even draughts.



*To Prevent Spread*

Separate the patient from all other children and do not allow him to attend day or Sunday school or go into the street for as long as the whoop continues and not less than five weeks from the commencement of the whooping.

Whooping Cough usually begins like an ordinary feverish cold, and is infectious from the start. All colds should therefore be looked upon with suspicion when Whooping Cough is prevalent.

When the last case has recovered, disinfect the sick room by washing everything you can with soap and hot water; what you cannot wash should be aired in the garden. Keep the windows freely open, and take care that the sick child's clothes are washed before return to school.

Other children who have not previously had the disease must be kept at home for at least three weeks from the onset of the disease in the child first infected, and may then return to day or Sunday school provided they are then free from symptoms.

Those who have already had Whooping Cough may be allowed to attend the Departments of the School for older scholars, but not the Infants' School.

Infants living in infected houses must be excluded from school while there is infectious illness in the house.

*A penalty of £5 is attached to the exposure of infected person and thing*

## COUNTY BOROUGH OF CROYDON.

## SUMMER DIARRHŒA.

This is the most fatal disease of infants. In all cases medical advice should be obtained without delay.

No food should be eaten except what is perfectly fresh.

Milk should not be kept in the house for more than twelve hours.

Milk should be boiled shortly before being given to the child.

Milk should be kept in a cool well-ventilated place, in vessels that have been well-cleansed and scalded,

\*The feeding bottle should be without a tube and should be scalded and carefully cleansed each time it is used.

All houses should be kept clean and well ventilated. The windows and doors should be kept open as much as possible. The floors of the rooms should be scrubbed with soap and water at frequent intervals, and the walls of closets, passages, and cellars should be limewashed frequently. Closet pans should always be clean, and back yards frequently swilled with water where possible.

*Animal and Vegetable Refuse should be burned in the kitchen grate instead of being put into the Dustbin. See that the Ashbin is regularly emptied.*

Nuisances including the prevalence of house flies, should be reported to the Public Health Department, at once.

\*For further particulars consult the pamphlet on Infant Feeding, which can be obtained free at the Public Health Department.

## COUNTY BOROUGH OF CROYDON.

### CHILDREN'S TEETH.

1. The Teeth *must* be kept clean.
2. Use a small tooth-brush Use a little soap and some precipitated chalk. Rinse the mouth several times with cold water.
3. Brush all the teeth thoroughly, especially the back ones Brush the top and both sides of the teeth. Brush up and down as well as across the teeth.
4. Clean the teeth immediately *before going to bed*. Take no food of any sort afterwards. Clean the teeth again in the morning.
5. *Clean teeth do not decay.*
6. If the food is too soft it is apt to cling about the teeth where it decays and damages the teeth. Chewing not only helps to digest the food but keeps the teeth clean.
7. Decayed teeth should receive attention as they give rise to indigestion and other troubles. Decayed temporary teeth may injure the permanent set.
8. Improperly fed infants are apt to have bad teeth. Study the handbill on infant feeding.

## COUNTY BOROUGH OF CROYDON.

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THE CLOTHING OF INFANTS.

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A young infant should be lightly but warmly clad in woollen material.

The garments required are :—

- (1) Long-sleeved Vest.
- (2) Binder.
- (3) Napkin.
- (4) Long Flannel
- (5) Gown.

The vest should be knitted or made of flannel. It must have sleeves to the wrist, and be made to open down the front with flaps to close over each other.

The binder can be a knitted belt to be slipped on from the feet, or a double fold of flannel, to be tied with tapes or ribbons. Its object is to keep the stomach warm, and it must not be tight.

The napkins should be of best Turkish towelling.

The long flannel must be made to fit closely up to the throat, and should be double-breasted. At the foot it can be folded over and fastened with buttons or safety pins, or it may be drawn up with a string like a bag.

If these garments were all made to fasten down the front, they could be placed into position, with the vest sleeves drawn through the armholes of the long flannel, and the baby being laid face downwards on the mother's knee, his arms can be inserted into the sleeves, then turn him over, and fasten the garments in front without further moving the child.

The gown should be made of some light material and have long sleeves.

When the child is short-coated, the long-sleeved vest and binder should still be worn, and knitted drawers with legs and feet attached, or long stockings and a flannel square, should be put on over the napkins.



A knitted or flannel petticoat with sleeveless bodice of the same material, and a long-sleeved frock of some warm stuff are also required.

It is a great mistake to try and harden infants by letting them expose their arms and legs in cold weather.

At night, the child also requires a vest and a flannel nightgown with long sleeves, but a different vest from that worn in the day should be used.

Patterns for cutting out the garments, and directions for knitting, can be borrowed from the Health Visitors.

**Ordinary Flannelette is a dangerous material.**

COUNTY BOROUGH OF CROYDON.

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## THE FEEDING AND CARE OF INFANTS.

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### FEEDING.

1.—The best food for a young infant is its mother's milk *Every infant should therefore be suckled*, if possible, unless the mother has medical advice to the contrary.

2.—Suckle once every two hours during the day, and once every four hours during the night, until the baby is about six weeks old, when every three hours will be often enough. As it grows older feed it less often, until at seven months it should be fed every three-and-a-half hours by day, and once by night. It is important for both mother and child that the *suckling should always be at regular intervals*, and not whenever the child cries. Crying is often a sign of pain from too frequent feeding.

3.—If the mother has not enough milk to satisfy the child it should still be suckled, but should in addition have one or more feeds of milk and barley water as described in Rule 7. *There is no danger in mixing the Milks.*

4.—During the suckling period the mother should take plenty of good, plain, nourishing food, but should avoid beer, wines and spirits, unless under advice. The mother should wash her nipples each time before and after suckling, and also wash out the baby's mouth. By these means, thrush and cracked nipples may be avoided.

#### WEANING.

5.—Select a time when the child is free from any illness. Do not wean an infant during July, August or September, when there is so much risk of Diarrhœa.

#### HAND FEEDING.

#### THE BOTTLE.

6.—*Bottles without tubes should be used.* Two should be provided. They should simply be fitted with a large indiarubber teat, which can be turned inside out for washing. A round hole should be bored in the teat with a heated needle, the hole being of such a size that the milk flows out *in drops* when the bottle is held upside down. After use the bottle should be rinsed and scalded, and allowed to drain while the other bottle is being used. Once a day each bottle and teat should be boiled. This can be done without breaking the bottle, by putting it in a saucepan full of cold water and gradually bringing to the boil. A piece of clean rag should be put under the bottle to prevent it resting on the bottom of the pan.

#### THE FOOD.

7.—Specially prepared mixtures of milk and cream are the best substitute for mother's milk; most infants, however, will thrive on cow's milk mixed with thin barley water, if constant care is taken to prepare it properly and to use a suitable form of bottle. Only milk that is perfectly fresh and of good quality should be used for the baby's food. Before use the milk should be at the temperature of the hand, *i.e.*, 98 degrees Fahrenheit, or blood heat. If the child does not thrive on cow's milk and barley water, medical advice should be sought.

8. Barley Water is made by boiling two teaspoonfuls of patent barley in a pint of water. Always prepare fresh at least once a day. Add this to the milk *and boil the mixture.* It should be sweetened with a small lump of sugar added to each bottle.

TABLE OF FEEDS.

Age of Child.	How often fed.	Average quantity for each feed.	
		Milk.	Barley Water.
Under 1 week ...	Every 2 hours (by day)	1 tablespoon	2 tablespoons
2—6 weeks ...	Every 2 hours „	2 „	4 „
6 wks.—3 mths.	Every 2½ hours „	5 „	5 „
3—6 months ...	Every 3 hours „	8 „	4 „

It is well to let the quantity largely depend on the appetite. The best test that a child is being properly fed is its weight. This should be ascertained from week to week, and advice obtained if the child is not steadily gaining weight. At six months a healthy child will take  $1\frac{1}{2}$  pints of milk in 24 hours. At nine months it will take two pints of milk in 24 hours. *A child that is over-fed and does not digest food wastes like one starved.*

10.—When the baby has reached *seven months*, the use of the bottle should be discontinued, and the child should be fed with a spoon or from a cup. The strength of the food should now be increased till the baby takes pure milk, which should, however, still be boiled. At two meals (night and morning) a small quantity of prepared food, such as Benger's, Mellin's, Savory and Moore's, Nursery biscuits or grated rusks may be added to the milk. Ordinary bread and milk or porridge should not be given at this age, but a little wheat flour, baked in the oven until it is nicely browned, may be given with the milk if the other foods cannot be obtained. *All infant foods should be given in small quantities at first, and only to infants over seven months old.*

11.—*At 12 months* a lightly boiled egg, a little broth, a few crumbs soaked in red gravy, a little milk pudding, porridge, bread and milk, or small pieces of bread and butter may be added to the diet.

12.—*At 18 months* a little finely minced meat, pounded fish or mashed potatoes with gravy may be given at one meal in the day. Never give an infant "what we have ourselves," cheese, bacon, tea or beer, nor soothing syrups, and teething powders. Wine or spirits should only be given under medical advice. If the baby is not thriving, see what a slight change in the strength of the food or kind of food will do. Do not allow it to be continually gnawing at a piece of bread or biscuit. If the baby continues to ail, seek medical advice.

#### CLOTHING.

13.—A young infant should be lightly, but warmly clad in flannel. Binders are unnecessary after the navel has healed. When the baby is short coated, the feet and legs should not be left bare. Older children also should always have their arms and legs, as well as their bodies, warmly clothed with flannel. It is a great mistake to try and harden infants by letting them expose their arms and legs in cold weather.



## CLEANLINESS.

14.—Wash all over in warm water once a day before a fire. Dry very carefully. If the folds of the skin are red, use some drying powder such as boracic acid or zinc and starch.

Never let a wet napkin remain on for a minute.

## FRESH AIR.

15.—The window should be kept open night and day throughout the year. The baby will not “catch cold” or suffer in any way if properly clothed. Let the baby be in the open air every day when the weather is fine.

If you are not able to send anyone out with the baby, let it lie out in a cot or perambulator in the garden.

## SLEEP.

16.—Every infant should sleep in a cot by itself. It is very dangerous to allow an infant to sleep in the same bed with an older person. Many children lose their lives every year by being overlaid by their mothers.

## FIRE.

17.—No child should be left alone within reach of a lamp or fire. Suitable fireguards can be obtained for a small cost. Clothes should not be made of inflammable flannelette.

## BABY COMFORTERS.

18.—Comforters or dummies should not be used. They become dirty, and thus cause sickness and diarrhœa. Their use also deforms the mouth, and leads to growth at the back of the nose as the child grows older.

## EYESIGHT.

19.—The eyes of a newly born baby should be very carefully cleansed with clean warm water and a clean rag immediately after birth. Should any redness of, or discharge from, the eyes come on, you should immediately seek medical advice, carefully wiping and washing the eyes by squeezing clean warm water from a clean rag till the doctor comes. The rag should be thrown away after use, and a new piece used each time. On no account drop milk or anything but water into the eyes. *Affections of the eyes in newly-born infants often lead to blindness if neglected.*

## COUNTY BOROUGH OF CROYDON.

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 THE PREVENTION OF CONSUMPTION AND  
 OTHER FORMS OF TUBERCULOSIS.
 

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*Consumption is caused by the growth in the body of minute germs (tubercle bacilli). These germs will not develop in the bodies of those who are in robust health and are living under healthy conditions.*

*The germs are derived from persons or animals suffering from Consumption.*

*The phlegm, spit, or expectoration of consumptive persons teems with the germs of consumption, as also may the milk of consumptive cows.*

## INSTRUCTIONS TO THOSE SUFFERING FROM CONSUMPTION.

Early cases of consumption may be arrested, and all cases may be benefitted by the following precautions: —

(1). *Fresh air* Bedroom windows should be kept open during the day and especially at night, and no heavy curtains should obstruct the sunlight. If necessary the windows may be closed while dressing and undressing. The *Chimney* should be left open and not be stopped up. Stuffy rooms and railway carriages should be avoided.

(2). *The Diet* should be ample. Avoid indigestible food. Alcohol is generally harmful, and should not be taken except under medical advice. All milk should be scalded.

(3). Clothing should be sufficiently warm to enable patients to stand the necessary amount of fresh air in their living rooms and bedrooms. In the winter overcoats and wraps are often of more service in the house and workshop than when taking exercise out of doors.

(4). The *Phlegm* coughed up by a consumptive person is *dangerous* when dried, because it becomes powdered into dust and is breathed with the air into the lungs, thus causing fresh infection in the patient and others. It is therefore dangerous as well as disgusting to spit on the floors or walls of dwelling houses, public rooms, or public conveyances.

Consumptives should spit either into pieces of rag or paper, which should be at once burned, or into a mug containing water. The vessel should be emptied into the water closet once a day, and then scalded and recharged with water. Persons with a chronic cough should take the same precautions.

(5). When out of doors consumptives should spit into a pocket spittoon or wide mouthed bottle, well corked. They should never spit on the pavement, but failing the bottle the next best thing is to spit straight into one of the street gullies.

(6). Consumptives must not kiss or be kissed on the mouth.

(7). *The house must be kept scrupulously clean.* When cleansing the rooms, damp dusters and plenty of wet sawdust or tea leaves should be used. Boil the dusters. Burn the sawdust or tea leaves. Any dampness, smells, or unwholesome conditions should be reported to the Health Visitor. The room will be disinfected when necessary by the Sanitary Authority.

(8). A handkerchief should be held over the mouth when coughing. All handkerchiefs must be boiled with a little soda before being sent to the wash.

(9). A separate bedroom is desirable while there is any cough.

#### ADVICE TO THOSE WISHING TO AVOID THE DISEASE.

(1). *Consumption* is not inherited, and may be avoided even by those exposed to infection if the general health is good and simple precautions are taken.

(2). *Fresh air* by night and by day is essential, both at home and at your place of business. Warm clothes will help you to make this pleasant. There is no danger or risk in breathing night air.

(3). *Overcrowded Rooms* and excesses of all kinds must be avoided. Your house and surroundings must be in every way clean and sanitary.

(4). *Promiscuous Spitting* must be avoided by yourself and by your companions and fellow workers.

(5). There is no danger in living with consumptives provided the suggested precautions are taken. Hospital nurses do not catch consumption in properly managed hospitals.



*Lastly, remember that fresh air and sunshine tend to cure and prevent not only consumption, but many other diseases.*

*Remember that it is as injurious to breathe the contaminated air of an unventilated room as to drink water contaminated with sewage.*

NOTE.—Patients should give ample notice to the Medical Officer of Health of their intention to remove, together with full address of their intended future residence.

## CROYDON HEALTH LECTURES.

### SOME USEFUL RECIPES.

*How to cook peas, beans or lentils.*—Dried peas, haricot beans and lentils contain as much flesh-forming material as meat, and are much cheaper. They must be soaked over-night, and will then take about two hours to cook. No salt must be added till they are cooked, or they will not get soft. As they contain no fat, some fat bacon or dripping, or a suet pudding, should form part of the meal.

*Lentil or pea soup.*—Soak a pint of split peas or lentils all night in enough water to cover them. Slice two onions (a carrot and a turnip, if you have them), put in a saucepan with a bit of dripping and fry a few minutes. Add the lentils, and two quarts of water, or liquor in which meat or bacon has been boiled. Boil about two hours till soft and serve with fried bread. Bones or bacon rind improve the soup. No salt should be added till the lentils are soft. It is an improvement to pass them through a sieve. A mixture of peas and haricot beans can be used for a change. Cost about 3½d.

*Sheep's head pie.*—Clean the head and put into enough cold water to cover it, with vegetables if you have any. Simmer gently till the meat will leave the bones. Chop up the meat and mix it with bread-crumbs or soaked crusts, some chopped onions, and some of the broth. Put it into a pie-dish, cover it with bread crumbs and some bits of dripping and brown it in the oven. Cost about 8d.

*Scotch broth.*—Take the broth in which the sheep's head has been cooked, cut up some vegetables or onions, add a cupful of rice or pearl barley, and boil till the rice is soft.

*Savoury rice.*—Boil  $\frac{1}{4}$ -lb. rice in two pints of milk and water till soft. (If skim milk is used a little dripping or chopped suet should be added.) Grate  $\frac{1}{4}$ -lb. of dry cheese, and stir into the rice with pepper and salt; or it may be put in a piedish in layers with cheese, and some bits of dripping on top, and browned in the oven. Macaroni can be used in the same way. Cost about 7d.

*Rice and lentil savoury.*—A teacupful each of rice and lentils, three onions chopped, pepper and salt. Cover them with water and cook slowly, adding more water as required. A double saucepan (or a jar stood in a saucepan of water) is best, to avoid burning. Cost about 2d.

*Rice and oatmeal pudding.*—Put a teacupful of rice and a teaspoonful of coarse oatmeal in a saucepan, with enough water to cover all, and simmer till the rice is half cooked. Add 2-ozs. of chopped suet, some grated cheese, and bake in a pie-dish. Cost about 6 $\frac{1}{2}$ d.

*Cheese and potatoe pie.*—Put 1 $\frac{1}{2}$ -lbs. of peeled potatoes and 2-ozs. rice on to cook. Grate  $\frac{1}{2}$ -lb. cheese. Mash potatoes, and mix one-third of them with the cooked rice, the cheese,  $\frac{1}{4}$ -lb. bread crumbs, 1 $\frac{1}{2}$ -oz. margarine, one egg and some pepper and salt. Add some gravy, if mixture is not moist enough. Put it in a pie dish, and cover with rest of potatoes. Put some margarine in small pieces over top of pie. Bake a golden-brown colour in quick oven.

*Cheese sauce.*—Melt one tablespoonful of margarine in a saucepan (a double saucepan is best), then stir in one tablespoonful of flour, and mix well. When that is hot, add gradually a breakfast-cupful of milk, stirring well. While this is getting hot, grate or chop up finely, 2-ozs. of cheese, and stir it into the sauce, which will gradually thicken, and then be ready to use with macaroni, fish, etc.

*Macaroni cheese.*—Boil 4-ozs. macaroni in fast boiling water, till it is soft (usually in about twenty minutes). Strain off the water, put the macaroni into a quart pie dish, pour over enough of the cheese sauce to cover. Bake till a nice pale-brown.

*Fish and cheese pie.*—Steam or boil 1 or 2-lbs. of fish till soft. Cut it in small pieces, place in a pie-dish, and pour cheese sauce over. Some macaroni, cooked as in the last recipe, may be mixed with the fish, if liked. Place some bread-crumbs or mashed potatoe on top. Bake till brown. (When making **cheese sauce**, oatmeal porridge, or other things likely to burn, it is best to use a double saucepan, to be bought for 6 $\frac{1}{2}$ d., or a jug or large jampot stood in a saucepan of boiling water will do instead.

*Plain suet pudding.*—

$\frac{1}{2}$ -lb. suet.                       $\frac{3}{4}$ -lb. flour.  
A little salt and cold water.

The pudding is much improved if 12-ozs. of flour and 3 of stale bread crumbs are used instead of all flour.

Shred the suet finely, mix it with the flour and salt, and enough water to form a stiff paste. Tie it in a floured cloth, and place it in boiling water. Boil quickly for an hour and a quarter. If you have currants stir them in. Cost about 3d.

*Oatcakes.*—Mix some oatmeal to a stiff paste with a little water or milk. Roll out quite thin, and bake till crisp.

*Dripping pudding.*—Rub 2-ozs. of dripping and a pinch of salt into  $\frac{1}{2}$ -lb. of flour. Add one teaspoonful of baking powder. Mix into a paste with milk or water. Steam (or boil in a floured cloth) for two hours. Serve with treacle.

*Fig or date pudding.*—Put a handful of odd crusts or pieces of bread in a basin, pour over some boiling water, and cover till soft. Then press it, pour away the water and beat up the bread with a fork till there are no lumps left. Chop up a teacupful of mutton suet and two cups of cooking figs or dates. Take out any date stones and hard tops and mix all well together with two cups full of flour and one of sugar. Add about one cup full of milk or water (the mixture should not be very stiff). Put it into a greased basin, tie a cloth well over it, put it into a saucepan of fast boiling water, and keep it boiling for 3 hours. The pudding can be turned out whole on a dish, or sent up in the basin.

TOWN HALL, CROYDON.